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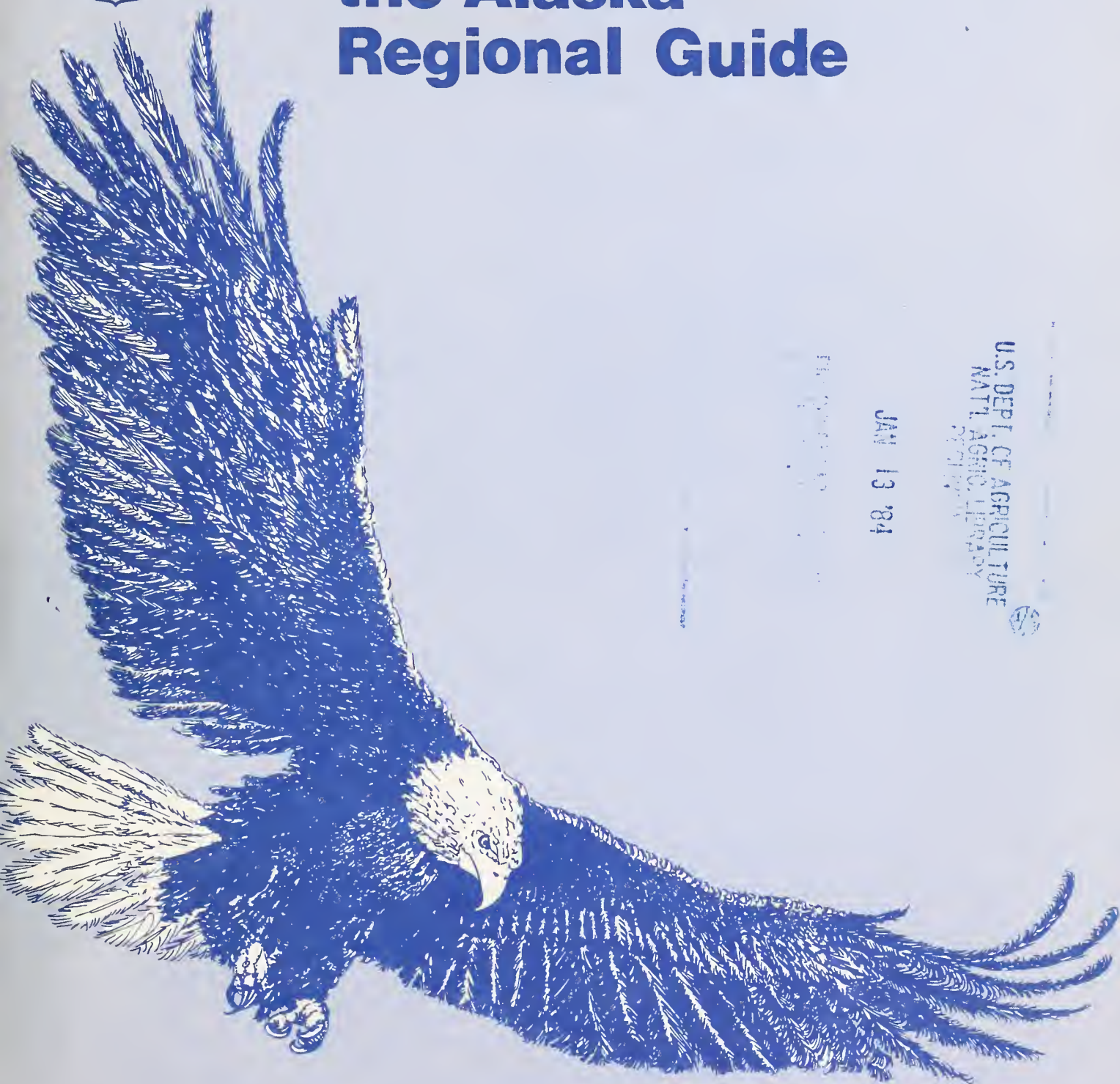
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Final Environmental Impact Statement for the Alaska Regional Guide



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FINAL ENVIRONMENTAL IMPACT STATEMENT

ON

STANDARDS AND GUIDELINES

ALASKA REGIONAL GUIDE

November 1983

Covering Forest Service programs that affect the State of Alaska

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Abstract:

In response to national direction from the Chief of the Forest Service and the 1980 Recommended Renewable Resources Program (RPA) and in compliance with the National Forest Management Act (NFMA) and the National Environmental Policy Act (NEPA), the Alaska Region proposes alternative standards and guidelines for certain management practices described in the Environmental Impact Statement to resolve significant issues, concerns, and opportunities brought to light through public participation within the Alaska Region. The Forest Service preferred alternatives are identified for the following: appropriate harvest cutting methods, maximum size of created openings, dispersal and size variation of tree openings created by even-aged management, state of vegetation to be reached before a cutover area is no longer considered an opening, management intensity, utilization standards, transportation and utility corridors, and air quality. This Environmental Impact Statement is a companion document to the Alaska Regional Guide, which contains a Summary of the Analysis of the Management Situation, Regional Management Direction, and Monitoring and Evaluation Requirements.

PREFACE

The regulations implementing the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), require the preparation of a Regional Guide and an Environmental Impact Statement for the nine Regions of the National Forest System. The Final Environmental Impact Statement (EIS) is prepared in the format established in the Council on Environmental Quality (CEQ) regulations (40 CFR 1502.10). This Final Environmental Impact Statement and the Regional Guide are treated as combined documents (40 CFR 1506.4).

FINAL ENVIRONMENTAL IMPACT STATEMENT

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SUMMARY OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT ON STANDARDS AND GUIDELINES IN THE ALASKA REGIONAL GUIDE

OVERVIEW

This Final Environmental Impact Statement (EIS) examines alternative Regional standards and guidelines that facilitate land and resource management planning for the two National Forests within the Alaska Region of the National Forest System. This Final EIS also describes the environment that will be affected and the potential environmental consequences of implementing either the proposed standards and guidelines or the alternatives.

The Alaska Regional Guide conveys management direction from the national level to the Tongass and Chugach National Forests. Implementing regulations¹ for the National Forest Management Act of 1976 (NFMA)² require each administratively designated Forest Service Region to develop a Regional Guide³ that reflects the general coordination of National Forest System, State and Private Forestry, and Research programs. The Guide facilitates Forest planning in three ways: it develops Regional standards and guidelines for the management of the National Forests; it provides planning direction for developing Forest Plans by resolving Regional issues relevant to Forest level land management decisions; and it displays tentative long-range program objectives for individual National Forests based on the National RPA Recommended Program, which Forests are to consider in their planning effort.

The Southeast Alaska Area Guide forms the foundation of the accompanying Alaska Regional Guide. The Area Guide was developed in 1977 to guide the preparation of the Tongass Land Management Plan. It was soon recognized as containing policies generally of Regional scope and was extended by the Regional Forester to cover the Chugach National Forest. An environmental impact statement was not prepared for the Southeast Alaska Area Guide. However, there was intensive public participation in the development of the Area Guide. (Refer to the Southeast Alaska Area Guide and the Tongass Land Management Plan Draft and Final Environmental Impact Statements for details of this process.) The process used to develop the Area Guide paralleled the NEPA process, and there has been widespread support for the Area

¹Federal Register, Volume 47, No. 190, September 30, 1982.

²90 Stat. 2949, et. seq.; 16 USC 1601-1614.

³36 CFR 219.8.

Guide, which has been used as planning direction for more than 5 years. Both the Southeast Alaska Area Guide and the environmental analysis conducted for the Area Guide are incorporated by reference in this EIS. This EIS does not examine in detail those minor policy changes to the existing Area Guide policies that were found to be applicable to all of Alaska. (See Appendix B.)

The standards and guidelines in the Regional Guide that represent a significant change to existing policy are examined in this Final EIS in accordance with implementing regulations of the National Environmental Policy Act. Regional goals, planning guidance, and tentative RPA Forest output objectives also presented in the Regional Guide were not considered in the Final EIS, because the questions of achieving specific goals or resource output levels and of applying particular management practices to specific land areas are deferred to Forest level planning. Therefore, goals and planning guidance contained in the Regional Guide do not represent actions that could have significant environmental effects.

ISSUES AND CONCERNS

A list of issues and concerns was developed from the Southeast Alaska Area Guide, from the summary of public comments on the February 1980 newsletter, from the summary of the May/June 1980 external coordination efforts, and from more recent correspondence and contacts with the public, with representatives of the State of Alaska, and with other Federal agencies. The following eight issues were identified from that review and analysis:

1. Possible adverse impacts to fisheries from timber harvest
2. Possible conflicts between the harvest of old-growth timber and wildlife habitat
3. Designation and management of wilderness
4. Concern about how much timber production can be sustained on National Forest System lands
5. Concern about economic development and social stability
6. Development of energy and mineral resources
7. Changes in recreation opportunities and visual resources
8. Transportation connections between communities and management of potential transportation corridors

The following management concern was identified from the review and analysis:

A need to revise the Southeast Alaska Area Guide policies to conform to new legislation; to provide standards and guidelines for timber

management, transportation and utility corridors, and air quality in accordance with the NFMA regulations; to permit more uniform application of policies on the ground; and to respond to public issues.

A systematic process was used in determining how each issue would be treated. Figure 1-1 in Chapter 1 is helpful in describing this process. Note that the Southeast Alaska Area Guide forms the foundation for the Regional Guide standards and guidelines. The policies in the Area Guide were analyzed for their adequacy and the extent to which a modification or new policy would contribute to issue resolution.

If the intent of the policy was correct, but minor clarification or elaboration was needed, then the modification was made without detailed analysis in the Environmental Impact Statement. For those policies that needed major modification, proposed standards and guidelines, as well as alternatives to them, were developed. A number of the alternative standards and guidelines are required by the NFMA regulations, and one standard and guideline addresses both an NFMA requirement and a Regional issue relating to transportation connections between communities and management of potential transportation corridors. Several other Regional issues and concerns identified during the planning process were eliminated from detailed study because either adequate guidance already existed in the Forest Service Directives System or the issue was best addressed at the Forest level. (See Appendix E for a detailed description of the disposition of each major issue and the role it played in the Regional planning process.)

ALTERNATIVE STANDARDS AND GUIDELINES

Alternative standards and guidelines (policies) were considered in detail for eight resource management categories. For each category, as many alternatives were developed as necessary to analyze the policy. In each case, Alternative A is the existing direction in the Southeast Alaska Area Guide. In some instances, only one alternative is proposed where, in the professional judgment of the Forest Service, there are no other reasonable, feasible alternatives available at this time.

Appropriate Harvest Cutting Methods

Four alternative systems of silviculture are considered, ranging from prescribing even-aged management for all species to prescribing uneven-aged management for all species. The preferred alternative clarifies concepts in policies of the Timber Account of the Area Guide. In this alternative, even-aged management is prescribed for all species, except where uneven-aged management is needed to meet other objectives. Clearcutting to regenerate an even-aged stand will be used as a cutting method only when such practices are determined to be optimum to meet objectives and requirements of the Forest Plan, and when such practices can be carried out in a manner consistent with the interdisciplinary process for the protection of soil, watershed, wildlife and fish, recreation, aesthetic quality resources, and the maintenance of the timber resource in a productive state. Regeneration

cutting methods and silvicultural standards for Alaska coastal forest types are presented in full in Chapter 3 of the Regional Guide.

Maximum Size of Created Openings

Four alternatives with a range of 75 to 160 acres as the maximum size of created openings for all forest types were considered in the Draft EIS. A fifth alternative was added in response to Draft EIS review; it was selected as the preferred alternative. The preferred alternative specifies a 100-acre limit on created openings for all forest types. The size of created openings may be up to 50 percent larger or up to 100 percent larger when necessary to protect adjacent stands from biological or natural hazards, based on a review by an interdisciplinary team and approval by the Forest Supervisor. Exceptions beyond these limits may be permitted on an individual timber sale basis after 60 days public notice and review and approval by the Regional Forester. The limits do not apply to the size of areas cut as a result of natural catastrophic conditions.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management

Compared with Area Guide policies, the preferred alternative provides a more comprehensive description of considerations to be made in long- and short-term planning. Distribution of openings over time will conform to a total compartment multientry plan and will be scheduled taking into consideration the assumptions, objectives, and allocations in the Forest Land and Resource Management Plan. Characteristics to be identified and delineated in the multientry plan are given. Factors for determining shape and dispersal of created openings are given also on an individual sale basis, including considerations such as not scheduling entry until adjacent or nearby areas are no longer openings.

State of Vegetation that Will Be Reached Before a Cutover Area Is No Longer Considered an Opening

There are no policies in the Area Guide to serve as current guidelines. Two alternatives are discussed. One requires that each created opening be associated with one of the following three primary considerations: appearance, wildlife habitat, and silviculture; it also requires that criteria associated with the selected consideration serve as guidelines. The other alternative, which is preferred, states that created openings will cease to be openings when areas are adequately stocked with desirable tree species that are approximately 5 feet in height according to silvicultural surveys. The height/density requirements may be adjusted by the Forest Supervisor to meet specific resource management considerations.

Management Intensity

The preferred alternative expands the Area Guide policies to reflect legislation and congressional intent of RPA, NFMA, and the Alaska Lands Act for the improved production and protection of the timber supply. This alternative includes guidelines for the selection, scheduling, and implementation of silvicultural practices, including stand examinations.

Utilization Standards

The preferred alternative represents current utilization trends, market conditions, and technological state-of-the art to promote the best use of wood production. Utilization standards are provided for regenerated stands and old-growth stands of merchantable timber. These will be reviewed periodically. Guidelines for yarding, scheduling, contracting, and utilization of other material are listed. Recent distribution of cant and pulp production is discussed in Chapter 4.

Transportation and Utility Corridors

The preferred alternative requires that corridor planning and development comply with the standards and guidelines for other resource elements. Coordination requirements with Canadian, Federal, State, and other government agencies, communities, private landowners, and affected individuals are listed. Transportation and utility corridor planning will be integrated with land and resource management plans to the extent feasible. Utility corridors will follow land transportation routes to the extent practicable and appropriate.

Air Quality

One alternative is discussed. Smoke management will be coordinated with the Alaska Department of Environmental Conservation.

AFFECTED ENVIRONMENT

The Alaska Region encompasses approximately 365.5 million acres, 22.7 million acres of which are on National Forest System lands. (See Figure 3-1 in Chapter 3.) The Region is divided into three subregions and includes two National Forests, the Chugach and the Tongass. (See Figures 3-2 and 3-3 in Chapter 3.)

Alaska's major physiographic divisions are the Pacific Mountain and Rocky Mountain Systems, and Intermountain Plateaus. All National Forest System lands in Alaska lie within the Pacific Mountain System. This system is an arcuate belt of two parallel mountain ranges separated by intervening lowlands. The northern arc includes the Coast Mountains, and the Alaska and Aleutian Ranges. The southern arc consists of the Kodiak, Chugach-Kenai, Chilkat-Baranof, and Prince of Wales Mountains. These two ranges come together to form the St. Elias Mountains. The intervening lowlands contain the Cook Inlet-Susitna, Cooper River, and Kupreanof Lowlands. The Chugach National Forest encompasses the Chugach-Kenai Mountains and portions of the Gulf of Alaska Coastal Section. The Tongass National Forest consists of the Coast, Chilkat-Baranof, and Prince of Wales Mountains and the Kupreanof Lowland.

The landscape of the Alaska Region has been shaped largely by glaciation, resulting in landforms with an abundance of very steep slopes and U-shaped

valleys. Unconsolidated soil materials include glacial till, volcanic sediments, alluvium, colluvium, residuum, and organic matter. Fine-textured marine and lake deposits occur on valley bottoms and lower hillsides.

Alaska contains four major climatic zones: Maritime, Transitional, Continental, and Arctic. National Forest System lands in Alaska are influenced by all but the Arctic Zone.

In the Maritime Zone, water is the major influence. This zone includes Southeast Alaska and the coastal land and islands in the Gulf of Alaska. This zone exhibits heavy precipitation, cool summers, and warm winters. Annual precipitation ranges from 40 to 220 inches. Twenty percent of the precipitation at lower elevations and nearly 100 percent at higher elevations comes as snow. Temperatures range from the low 20's in winter to the low 70's in summer. Frequent cloudiness and fog are common.

The Transition Zone consists of a band of varying width between the Maritime and Continental Zones. Weather is variable; it may be Continental, Maritime, or a combination of the two. On the average, temperatures are more extreme than in the Maritime Zone, but less extreme than in the Continental Zone. Precipitation amounts in the Transition Zone also fluctuate between the levels in the two zones.

The Continental Zone is inland from the Maritime Zone. Annual precipitation is light, summers are warm, and winters are cold. Annual precipitation ranges from 10 to 80 inches. Fifty percent of the precipitation is in the form of rain. Temperatures range from -30° F in winter to the high 70's in summer.

Vegetative types are determined by climatic and edaphic factors. Common vegetative types include spruce-hemlock, spruce-birch, black spruce, muskeg, alder thickets, cottonsedge and watersedge tundra, Aleutian meadow, and Aleutian and barren heath.

Alaska's vegetative types are related to seven major ecological regions. These regions are the Arctic tundra, Brooks Range, Bering tundra, Yukon parkland, Alaska-Aleutian Range, Coastal trough, and Pacific forest.

ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

Although the standards and guidelines examined in this Final EIS will apply on the approximately 22.7 million acres of National Forest System land in the Alaska Region, they do not allocate specific land uses, nor do they specify actions to be taken on a particular land area. Rather, they guide the decisions that are made in individual National Forest Land and Resource Management Plans concerning what actions are to be taken on a specific area of land.

Therefore, the physical, biological, social, and economic consequences of the proposed standards and guidelines or their alternatives that are discussed in this Final EIS are very general. The extent of the area to which the standards and guidelines apply and the measurable impacts of

implementing them will be determined in individual Forest Plans. Measures to mitigate these impacts will also be presented in detail in Forest Plans and in site-specific project proposals.

Cumulative Impacts of the Proposed Action

The set of eight standards and guidelines identified as the preferred alternatives examined in this Final EIS represents the proposed actions that appear in the Regional Guide. The proposed actions reiterate the Region's commitment to the policies in the Southeast Alaska Area Guide and the Tongass National Forest planning process. They stress environmental, social, and economic analysis; an interdisciplinary approach; achievement of multiresource objectives; and involvement of others in the Forest Service planning and decisionmaking process.

To facilitate a comparison of the cumulative impacts of the alternatives, two sets of standards and guidelines were considered. The first set includes the preferred alternatives for the eight sets of standards and guidelines. The second set of standards and guidelines consists of current policy as represented in the Southeast Alaska Area Guide; this constitutes the no action set. Of the eight proposed actions (preferred alternatives), six represent a refinement of current direction as stated in the Area Guide. Therefore, the cumulative effects of the proposed actions, on the basis of change from what is currently occurring, are limited in scope.

Mitigation Measures Common to All Alternatives

As stated previously, the standards and guidelines proposed in the Regional Guide are programmatic in nature. The actual effects of implementing the standards and guidelines will be determined in individual Forest Plans. The Forest planning process incorporates many mitigation measures to prevent adverse environmental effects. The NFMA regulations require balanced consideration of all resources to ensure that multiple uses are realized and their yields sustained. The NFMA regulations, Forest Service Directives System, and forest-wide management, as well as requirements specific to each analysis area developed for each Forest Plan provide a minimum level of protection for all resources and mitigate adverse environmental effects. Therefore, none of the standards and guidelines should produce major adverse environmental consequences.

Prime Farmlands, Wetlands, Floodplains, and Wild and Scenic Rivers

The set of proposed actions (combined with policies retained from the Southeast Alaska Area Guide) provides the greatest flexibility in adapting Forest management activities to the prevailing hydrologic and physiographic conditions. Therefore, the set of proposed actions will help to protect specified wetlands and floodplains.

There are no prime farmlands on National Forest System lands in Alaska. The Situk River is the only river on National Forest System lands that has been identified for study as a potential component of the National Wild and Scenic River system. The EIS and study report being prepared by the Forest

Service in cooperation with the State of Alaska addresses possible adverse effects to the river. Regional standards and guidelines should mitigate potential adverse effects.

Energy Requirements

The proposed actions require a greater degree of planning to achieve efficiency than the no action alternatives. These actions will increase energy conservation by allowing more flexibility in the size of created openings and by requiring more preplanning in laying out timber harvest units over several entries.

Relationship Between Short-Term Uses and Long-Term Productivity

The relationship between short-term uses and long-term productivity is extremely complex and depends upon management objectives and site-specific conditions. In general, the risk of adverse effects on long-term productivity is greater under the no action set of alternatives. The preferred alternative for the dispersal and size variation of created openings stresses multientry layout plans that take into account the long-term effects of the design of harvest units. However, actual decisions affecting the long-term productivity of the land are made at the Forest level. By law, the Forest Plan incorporates the concept of sustained yield of resource outputs, while maintaining the productivity of all resources. Specific direction included in the forest-wide management requirements ensures that long-term productivity will not be hindered by short-term management practices.

Conflicts With Plans of Other Public Agencies

Regional planning has been coordinated with the equivalent and related planning efforts of other Federal agencies; Regional, State, and local governments; and Alaska Native groups and Native corporations. Development of the proposed standards and guidelines was a result of this coordination and other public involvement. In addition, the Regional Guide has benefited from the extensive cooperation that contributed to the Southeast Alaska Area Guide. Conflicts with the plans and policies of the entities mentioned above as a result of implementation of the proposed standards and guidelines were not identified during the Regional planning process. When specific proposals or projects are to be implemented, established coordination procedures will be followed to address this concern.

SOCIAL AND ECONOMIC EFFECTS (CUMULATIVE)

Based on the last 8 years of employment information, National Forest harvests over the next decade in the Alaska Region will generate approximately 2,750 jobs annually within the timber industry. These jobs, in addition to Forest Service employment, will induce another 2,075 jobs throughout the State's economy. Assuming that the Native corporation harvests average 225 million board measure per year over the decade (as projected for intensive management practices in the Report of the Senate Committee on Energy and

Natural Resources accompanying the Alaska Lands Act), another 520 timber industry jobs and 415 other jobs should be created. Employment-output ratios for Native corporation harvests are lower because of the absence of primary processing regulations requiring the semiprocessing of logs to cants and waneys before export. Without this restriction, the Native corporations are free to export their higher quality logs in the round.

Historically, employment in the logging industry is less stable than employment in pulp and sawmilling industries. While mill employment is generally more stable, when employment levels do change, the resulting effects are greater. With an increased statewide timber harvest as a result of the addition of Native corporation harvests, an overall increase in timber industry employment is anticipated. This increase, however, may not coincide with greater economic stability, because of the seasonal nature of logging operations and the relatively remote and self-sufficient characteristics of logging camps. Also, Native corporation harvest levels may be more sensitive to market fluctuations than harvests from public land.

Employment related to fisheries is seasonal. Commercial fishing employment is relatively stable because of the State's limited entry regulations, which restrict the number of commercial fishing permits allowed. Fish processing, on the other hand, is highly variable because of the seasonal nature of the work and because of relatively large changes in the annual commercial catch and market conditions.

Employment related to tourism is growing; though, it is also seasonal. Much of this employment occurs out of State, or briefly within Alaska, as in the case of commercial airlines and cruise ships.

Chapter 1

PURPOSE AND NEED

OVERVIEW

This Final Environmental Impact Statement (EIS) examines alternative Regional standards and guidelines that facilitate land and resource management planning for the two National Forests within the Alaska Region (Region 10) of the National Forest System. This Final EIS also describes the environment that will be affected and the potential environmental consequences of implementing either the proposed standards and guidelines or the alternatives.

Regional planning takes place within the overall planning framework structured by the implementing regulations of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), and of the National Environmental Policy Act of 1969 (NEPA). Every 5 years, through information gathered at the local and Regional levels, a comprehensive national program for forest and rangeland renewable resources--the RPA Program--is transmitted to Congress. The RPA Program recommends resource output levels to be achieved by Forest Service programs. These outputs include timber, range, water, wildlife and fish habitat, outdoor recreation, and wilderness. The RPA Program displays each Region's share of the national objectives in terms of output targets and associated costs.

Each Region then tentatively distributes its share of the RPA resource objectives among its National Forests. However, this resource target distribution is not binding on the individual Forests as they develop their plans; it merely provides one set of targets that must be considered. The questions of achieving specific resource output levels and applying particular management practices to specific land areas are deferred to the National Forests. Each Forest Land Management Plan specifies, for example, how, where, and when timber will be cut, recreation development will occur, and wildlife will be managed. The Regional Guide, on the other hand, specifies a number of requirements that must be met on the Forest when particular management practices are implemented. Therefore, rather than considering alternative resource output levels or land allocations (which will be the province of the environmental impact statements accompanying the individual Forest Plans), this EIS focuses on the Regional standards and guidelines that will govern management practices selected by the Forests.

The Regional Guide is a summary document containing information on Forest Service management for Alaska. It does more than display proposed

decisions; it displays information that has been analyzed in other environmental review processes and displays previous decisions. These include the RPA Program, annual budgets, the Southeast Alaska Area Guide, the National Forest Management Act Regulations (36 CFR 219), and the Alaska Lands Act.

The EIS does not examine in detail those minor policy changes to the existing Area Guide policies that were found to be applicable to all of Alaska. (See Appendix B.) The Area Guide was developed in 1977 to guide the preparation of the Tongass Land Management Plan. It was soon recognized as containing policies generally of Regional scope and was extended by the Regional Forester to cover the Chugach National Forest. An environmental impact statement was not prepared for the Southeast Alaska Area Guide. However, there was intensive public participation in the development of the Area Guide. (Refer to the Southeast Alaska Area Guide and the Tongass Land Management Plan Draft and Final Environmental Impact Statements for details of this process.) The process used to develop the Area Guide paralleled the NEPA process, and there has been widespread support for the Area Guide, which has been used successfully for over 5 years.

Public participation has been an integral component in the development of the Regional Guide and this Final EIS. A basic objective of the Regional planning process is to find ways to respond to the public's differing needs and desires regarding the mix of goods and services that should be provided from National Forest System lands. A Draft Regional Guide¹ and a Draft EIS were filed with the U.S. Environmental Protection Agency and circulated for public review in August 1981. After the close of the comment period, the Forest Service assessed all comments and responded by modifying the two documents as necessary. The documents also have been modified to reflect changes in the NFMA regulations (36 CFR 219) published in the Federal Register on September 30, 1982. Also, because of the large number of alternatives considered in this EIS, a comparison of alternatives responding to each issue considered in detail is provided in Chapter 4 to facilitate the discussion of environmental consequences.

This Final EIS uses the data base generated to support analyses during the preparation of the National RPA Program and its Final EIS. These documents are incorporated by reference (40 CFR 1502.21) to avoid the duplication of information. This Final EIS, in turn, will serve as the data base for subsequent environmental analyses. Therefore, environmental analyses for future Forest-level plans and projects will be shorter and will concentrate on issues unique to each Forest.

Other documents are also incorporated by reference into this Final EIS. The documents and files (planning records) that chronicle the Regional planning process are available for inspection at the Alaska Regional Office;

¹The NFMA regulations published September 30, 1982, changed the name of this Regional planning document from Regional Plan to Regional Guide. All references to this document have been changed to "Regional Guide."

Federal Office Building; Juneau, Alaska, during regular business hours. These planning records contain the detailed information and decisions used in developing the Regional Guide. The planning records are incorporated by reference at appropriate points in the text and the appendixes of the Final EIS and Regional Guide. Also incorporated by reference in this EIS is Chapter 2 of the Regional Guide, Summary of the Analysis of the Management Situation.

ISSUE IDENTIFICATION PROCESS

In the scoping process for the Regional Guide, national and regional public issues and management concerns were combined and used to guide the preparation of the Regional Guide. The public issues and management concerns identified in the public involvement and scoping process highlight the concerns voiced by the general public; Federal, State, and local agency personnel; Alaska Native groups and corporations; Forest Service managers; and private organizations. Two items were of particular importance in preparing the Alaska Regional Guide: the issues raised by the public and the Southeast Alaska Area Guide (1977). The process used to prepare the Alaska Regional Guide and Final EIS is outlined in Figure 1-1. As depicted in Figure 1-1, the identification of public issues and management concerns was the driving force behind the planning process.

The Regional planning interdisciplinary team prepared a preliminary list of issues from a review of 11 previous planning documents and from discussions with agency representatives from the State of Alaska. These issues were refined to seven major questions. A list of management concerns was also identified by Forest Service personnel.

The list of issues and concerns was distributed for public review and comment in a planning newsletter in February 1980. Public comments responding to the newsletter were reviewed and analyzed. Further efforts were made to contact other Federal agencies and Native corporations in May and June 1980. Because of the uncertainty of the final legislation regarding the Alaska Lands Act then before Congress and because of the impending expiration of the withdrawals under the Federal Land Policy and Management Act, the Regional planning process was suspended in June 1980.

The process began again immediately after passage of the Alaska Lands Act in December 1980. The interdisciplinary team met to reconsider the issues and management concerns. The public had commented on the adequacy of the original seven planning questions identified through responses to the February newsletter, and they had provided other issues and concerns, many of which were detailed or specific statements falling under one of the original seven headings.

A list of issues and concerns was developed from the Southeast Alaska Area Guide, from the summary of public comments on the February 1980 newsletter, from the summary of the May/June 1980 external coordination efforts, and from more recent correspondence and contacts with the public, with representatives of the State of Alaska, and with other Federal agencies.

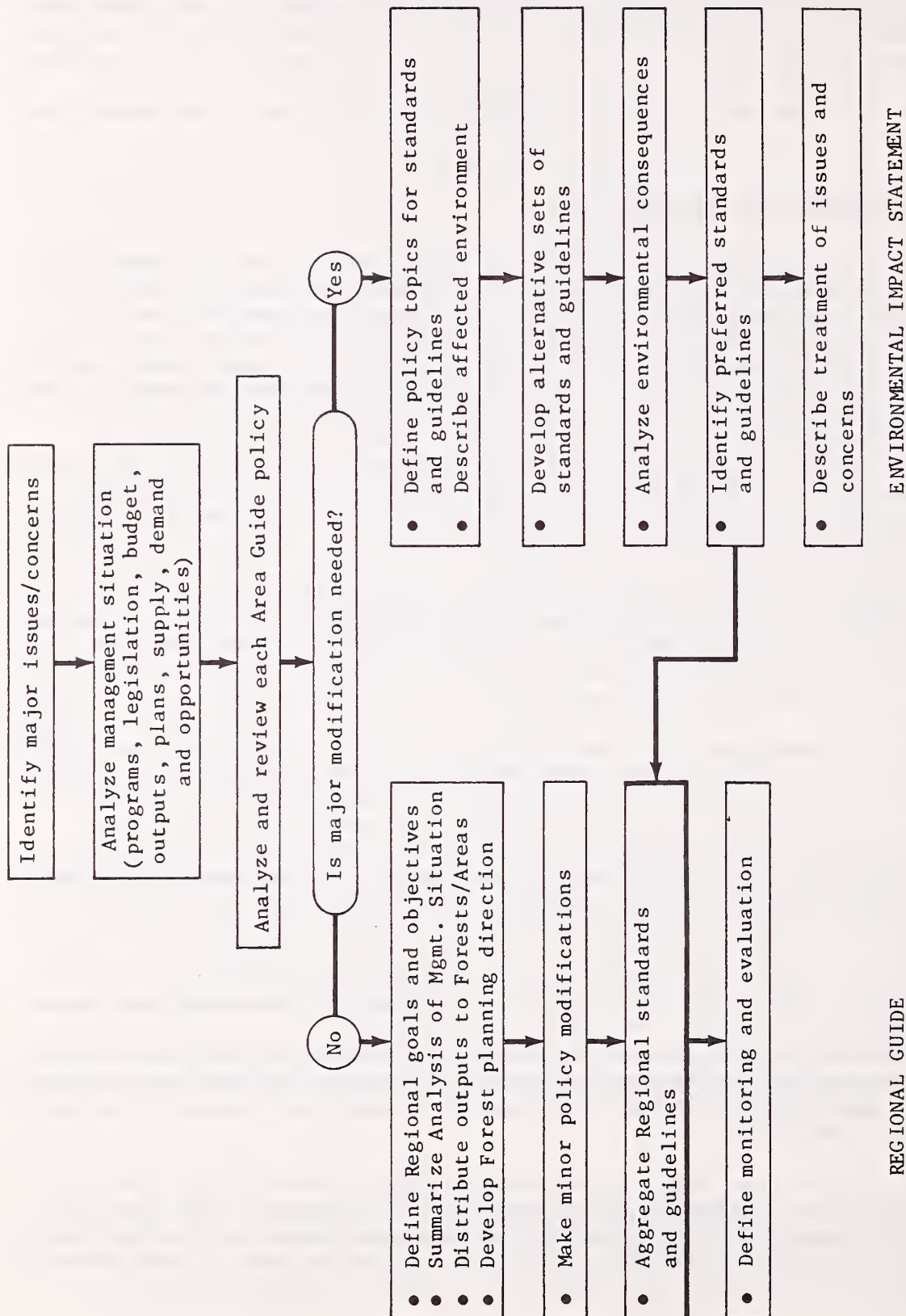


Figure 1-1 The Role of the Southeast Alaska Area Guide in the Development of the Regional Guide and Environmental Impact Statement

The issues were evaluated against the following criteria to determine which issues and concerns would be used to guide the preparation of the Regional Guide:

1. The issue affects or is affected by Forest Service activities; or the issue cannot be readily resolved without Forest Service involvement.
2. The issue is Regional in scope and cannot solely be resolved in either a Forest Plan or at the national level through the RPA process; and the issue can be at least partially resolved within the existing authority of the Regional Forester.
3. The issue involves significant resource conflicts; major economical, social, physical, or biological implications; or there is a high level of public interest in the issue.

The following eight issues were identified from the review and analysis:

1. Possible adverse impacts to fisheries from timber harvest
2. Possible conflicts between the harvest of old-growth timber and wildlife habitat
3. Designation and management of wilderness
4. Concern about how much timber production can be sustained on National Forest System lands
5. Concern about economic development and social stability
6. Development of energy and mineral resources
7. Changes in recreation opportunities and visual resources
8. Transportation connections between communities and management of potential transportation corridors

The following management concern was identified from the review and analysis:

A need to revise the Southeast Alaska Area Guide policies to conform to new legislation; to provide standards and guidelines for timber management, transportation and utility corridors, and air quality in accordance with the NFMA regulations; to permit more uniform application of policies on the ground; and to respond to public issues.

A systematic process was used in determining how each issue would be treated during the development of the Regional Guide. Figure 1-1 is helpful in describing this process. Note that the Southeast Alaska Area Guide forms the foundation for the Regional Guide standards and guidelines. The policies in the Area Guide were analyzed for their adequacy and the extent to which a modification or new policy would contribute to issue resolution.

If the intent of an Area Guide policy was correct, but minor clarification or elaboration was needed, then the modification was made without detailed analysis in this Environmental Impact Statement. For those policies that needed major modification, proposed standards and guidelines, as well as the alternatives to them, were developed. A number of the alternative standards and guidelines are required by the NFMA regulations, and one standard and guideline addresses both a NFMA requirement and a Regional issue relating to transportation connections between communities and management of potential transportation corridors. Several other Regional issues and concerns identified during the planning process were eliminated from detailed study because either adequate guidance already existed in the Area Guide, the processes needed to address the issues were already underway, or the issue was best addressed in Forest level planning. (See Appendix E for a detailed description of the disposition of each major issue and the role it played in the Regional planning process. Also see page 3-47 of the Regional Guide for issues to be addressed in the Tongass Land Management Plan.)

Major Changes for Standards and Guidelines

Alternatives were proposed and evaluated for the following standards and guidelines, which are required by the regulations implementing NFMA:

1. Appropriate harvest cutting methods
2. Maximum size of created openings by even-aged management
3. Dispersal and size variation of tree openings created by even-aged management
4. State of vegetation that will be reached before a cutover area is no longer considered an opening
5. Management intensities for use in determining harvest levels
6. Utilization standards for trees to be used in determining harvest levels
7. Standards and guidelines for designating transportation, transmission line, pipeline, and water canal corridors and for managing such corridors
8. Standards and guidelines for identifying significant current and potential air pollution emissions in and around the Forest planning area, and what measures are needed to coordinate air-quality control with appropriate air-quality regulation agencies

Categories 1, 4, 7, and 8 have been restated from the wording in the Draft EIS to conform to the revised NFMA regulations.

The Draft EIS, which was circulated in August 1981, contained two additional categories for which it presented standards and guidelines and alternatives to them. Because the revised NFMA addressed these categories at the

national level, there is no need to discuss these alternative standards and guidelines in the Regional Guide and Final EIS. The two categories and the policies related to them are as follows:

1. Category. Biological growth potential for determining the capability of land for timber production.

Policy Discussion. During revision of the NFMA Section 6 regulations, it was concluded that the economic suitability test called for by the National Forest Management Act would only be made on a site-specific basis. The 20 cubic feet per acre per year standard, or any other national or Regional standard could not be professionally supported. Reference to a particular growth standard was dropped in the final rule. As now stated, the economic suitability test is defined in 36 CFR 219.14(c) and (d) and depends upon the objectives of the particular alternative that is selected as the preferred. Each Forest Plan alternative could, therefore, have different areas of suitable land.

2. Category. Unit of measure for expressing mean annual increment.

Policy Discussion. Mean annual increment is to be expressed in cubic measure (36 CFR 219.16(a)(2)(iii)).

Summary of Areas of Concern

In summary, eight issues and one management concern were identified to guide preparation of the Regional Guide. When evaluated against existing policies from the Southeast Alaska Area Guide and the Alaska Lands Act, three major policy changes or clarification of present policy were needed to resolve the following:

1. Transportation connections between communities and management of potential transportation corridors
2. Need to revise the Southeast Alaska Area Guide to conform to National Forest Management Act requirements
3. Conflict between harvest of old-growth timber and wildlife habitat

Alternative policies were developed and analyzed in this EIS to address the first two issues. The Forest Service is working to resolve the old-growth timber issue. For Regional policies and research studies, see Chapter 5 of the Regional Guide and regionwide wildlife standards and guidelines in Chapter 3 of the Regional Guide. Alternatives to the required NFMA policies presented in this EIS have been evaluated for their consequences to wildlife. Appendix B of this EIS displays Regional standards and guidelines and the disposition of all Area Guide policies. New wildlife policies in the Guide were adopted to improve analysis and implementation of existing Area Guide wildlife policies. They are not, however, actions with significant environmental impacts and, therefore, are not discussed in this EIS.

Chapter 2 ALTERNATIVES

OVERVIEW

This chapter outlines the alternatives considered during the Regional planning process. It is divided into two sections: alternatives considered but eliminated from detailed study, and alternatives considered in detail. The first section is limited to a general discussion of types of alternatives that were considered during the process. The next section presents alternative standards and guidelines for eight categories required by the NFMA regulations.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

During the issue screening process, a number of broad alternatives were eliminated from detailed study because they did not adequately respond to public issues and management concerns. Also, additional considerations were eliminated either because existing direction was adequate or because processes needed to address the issues were already under way. A description of these broad alternatives follows.

Complete Revision of the Area Guide

As explained in Chapter 1, analysis of the issues and management concerns, legislation, and existing policy showed that major policy changes were not needed to address six of the eight public issues. These issues have been adequately addressed by either existing policies or the Alaska Lands Act, or they would be addressed outside of the Regional planning process. It was concluded that numerous Guide policies remain as effective standards or guidelines in the resolution of the specific problems that they address. Therefore, complete revision of the Area Guide was eliminated from detailed study.

Not Incorporating the Southeast Alaska Area Guide into the Regional Guide

The alternative of not incorporating the Southeast Alaska Area Guide into the Regional Guide was eliminated from detailed study because the Area Guide essentially has served as a Regional Guide, having substantial support from the various public groups, organizations, and agencies that participated in its development. Instead, Regional level material from the Area Guide has been incorporated into and, in some cases, updated in the Regional Guide

for several reasons:

1. The Area Guide has served as direction for development of the Tongass Land Management Plan.
2. It has guided management on the Tongass and Chugach National Forests.
3. The revised Forest Service planning process (36 CFR 219) requires the development of standards and guidelines in the Regional Guide and Forest Plans.
4. Since their preparation, some Area Guide policies have been determined to need modification or clarification in order to better address public issues and management concerns at the Regional Guide level. Subsequent adoption of the National Forest Management Act regulations and congressional passage of the Alaska Lands Act mandate policy changes that were not clearly anticipated during preparation of the Area Guide.

Public Law 96-487 (Alaska Lands Act)

The Forest Service considered incorporating the development of all policies and regulations required by the Alaska Lands Act into the Regional planning process. Because the processes and schedules specified to implement the Alaska Lands Act are highly varied, it was decided that the Regional planning process would not be the appropriate means to manage the collective policy development required by the act. The Forest Service decided to incorporate policies resulting from implementation of the Alaska Lands Act into the Regional Guide when appropriate. (Refer to Appendix D of the Regional Guide for a discussion of Alaska Lands Act implementation. Refer to Appendix C of the Guide for Forest Service response to State of Alaska policy concerns.) Thus, while the Regional Guide does not include all the requirements of the Act, it is consistent with it.

Land Allocation

The concept of allocating National Forest System land to particular uses was eliminated from detailed study because the allocation of lands and resources is a Forest planning function. Refer to Chapter 1 of the Regional Guide for the discussion of Forest planning.

Additional Wilderness Classification

In accordance with Section 708 of the Alaska Lands Act, no additional wilderness evaluation will be conducted on the Tongass National Forest prior to revision of the Tongass Land Management Plan. Wilderness evaluations on the Chugach National Forest are currently being completed as a part of the Chugach land and resource management planning process. Thus, no policies concerning additional wilderness have been considered in the Regional Guide.

RPA Targets

Forest Service planning regulations permit proposal of adjustments to RPA targets in the Regional planning process. Available information indicated that no adjustments to the Region's RPA targets were needed for the first round of Regional planning in Alaska.

Detailed Process Guidance

The Forest Service considered developing alternatives that would provide detailed procedural guidance to the Forests for several resource elements. These alternatives were eliminated because a Forest Service Directives system already exists that provides procedural guidance and because procedural guidance often requires frequent revision and updating as experience is achieved and new information is obtained. Placing such details in the Regional Guide would make revision needlessly cumbersome.

Forest Service Manual direction is referenced or incorporated into the Regional Guide only in those instances where best professional judgment led to the conclusion that the direction would most likely be appropriate for the entire planning period.

A number of issues were eliminated from detailed consideration because they were beyond the purview of the Regional Forester. For example, reduction of the 4.5 billion board feet per decade timber supply level for the Tongass National Forest was not considered as an alternative to resolve the issues relating to timber management, including the harvest of old-growth timber. This supply level was mandated by Congress in the Alaska Lands Act. Congress has established a series of studies to evaluate effects of this level of timber supply in the Alaska Lands Act.

Establishing Maximum Size Limits for Each Forest Type

The Forest Service considered developing a maximum size of opening alternative that set different size limits for each forest type. However, this alternative was not considered in detail for the reasons described below. Instead, for all alternatives considered in detail (including the Area Guide policy for this category), the size of openings is limited to the same maximum for all forest types.

Cedar and hardwoods are usually considered to be a component of the broad hemlock-Sitka spruce ecotype in Southeast Alaska. While the white spruce and interior hardwoods on the Chugach National Forest are now recognized as distinct forest types, their occurrence as a species is comparatively minor--0.1 and 0.3 of 1 percent net volume live saw timber, respectively. In addition, white spruce is extensively hybridized with Sitka spruce when both occur on the Kenai Peninsula.

Interior hardwoods are generally formed in association with white-black spruce and mountain hemlock stands, becoming established following stand openings created by fire, blowdown, insect or disease infestations, or timber harvesting. They are, over time, succeeded by white spruce or other associated conifers.

ALTERNATIVES CONSIDERED IN DETAIL

Eight sets of alternative standards and guidelines required by the NFMA regulations are displayed by resource management category on the following pages. In most categories, Alternative A is the existing direction in the Southeast Alaska Area Guide and represents the no action alternative. In cases where there is no Southeast Alaska Area Guide policy, the no action alternative has been identified. For each category, as many alternatives were developed as necessary to analyze the policy. Only one alternative is proposed for air quality because, in the professional judgment of the Forest Service, there are no other reasonable, feasible alternatives available at this time.

The Southeast Alaska Area Guide policies were used as the starting point in developing Regional Guide standards and guidelines. The Area Guide had a very strong background of public involvement and support. The Forest Service sought staff expertise; public participation; State, Federal, and local government agency involvement; and suggestions from Alaska Native groups for alternative proposals to the Area Guide policies. This response, including scoping sessions and the public response to the Draft EIS, has shown strong support for the direction in the Area Guide. Little support was shown for presenting additional alternatives. There was a general feeling during the scoping sessions that the Area Guide policies should not be "re-opened." Therefore, the public was reluctant to again add alternatives that were discarded during preparation of the Area Guide. See Appendix C for attitudes about specific policies and for the public response to the standards and guidelines as discussed in the Draft EIS.

The preferred alternative for each policy is printed in upper case letters. Refer to Chapter 4, Environmental Consequences, for a discussion of the difference between alternatives.

Appropriate Harvest Cutting Methods

Alternative A (Area Guide)	Alternative B	Alternative C	Alternative D (Preferred)
<p>Clearcutting and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method only where:</p> <ol style="list-style-type: none"> 1. For clearcutting, it is determined to be the optimum method; and for other such cuts, it is determined to be appropriate to meet the objectives and requirements of the relevant land and resource management plan. 2. The interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering, and economic impacts on each sale to be advertised have been assessed. 3. Cutting blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain. 4. Clearcuts are carried out in a manner consistent with the protection of soil, watershed, wildlife and fish, recreation, and aesthetic, resources, and the regeneration of the timber resource. 5. Stands designated for clearcutting have generally reached the culmination of mean annual increment of growth. 6. Cutting units are located so timber stands can be logged without creating inoperable areas or creating areas where future 	<p>Even-aged harvest cutting methods are prescribed for all species.</p>	<p>Uneven-aged harvest cutting methods are prescribed for all species.</p>	<p>EVEN-AGED HARVEST CUTTING METHODS ARE PRESCRIBED FOR ALL SPECIES, EXCEPT WHERE UNEVEN-AGED MANAGEMENT IS NEEDED TO MEET OTHER RESOURCE OBJECTIVES.</p> <p>CLEARCUTTING TO REGENERATE AN EVEN-AGED STAND WILL BE USED AS A CUTTING METHOD ONLY WHERE SUCH A PRACTICE IS DETERMINED TO BE OPTIMUM TO MEET THE OBJECTIVES AND REQUIREMENTS OF THE FOREST PLAN AND CAN BE CARRIED OUT IN A MANNER CONSISTENT WITH THE INTERDISCIPLINARY PROCESS FOR THE PROTECTION OF SOIL, WATER, WILDLIFE AND FISH, RECREATION, VISUAL RESOURCES, AND THE REGENERATION OF THE TIMBER RESOURCE.</p> <p>MANAGEMENT PRESCRIPTIONS WILL NOT BE CHOSEN PRIMARILY BECAUSE THEY WILL YIELD THE GREATEST DOLLAR RETURN OR THE GREATEST AMOUNT OF TIMBER, ALTHOUGH THESE FACTORS WILL BE CONSIDERED.</p> <p>CLEARCUTTING AND OTHER CUTS DESIGNED TO REGENERATE AN EVEN-AGED STAND OF TIMBER WILL BE USED AS A CUTTING METHOD ONLY WHERE CUTTING UNITS ARE LOCATED SO TIMBER STANDS CAN BE LOGGED WITHOUT CREATING ISLANDS OF TIMBER THAT CANNOT BE ECONOMICALLY HARVESTED IN THE FUTURE, OR WITHOUT CREATING AREAS WHERE FUTURE LOGGING WILL DESTROY REGENERATION ESTABLISHED FOLLOWING AN EARLIER REGENERATION CUTTING.</p> <p>(Regeneration cutting methods and silvicultural standards for</p>

Appropriate Harvest Cutting Methods (continued)

Alternative A (Area Guide)	Alternative B	Alternative C	Alternative D (Preferred)
logging will destroy needed regeneration established after earlier removal. Unit spacing and subsequent entries will be done on the basis of total area planning by compartment.			Alaska coastal forest types are discussed in full in Chapter 3 of the Regional Guide.)
The most efficient timber harvesting and extraction systems will be utilized, consistent with prescriptions and policies for other resources. Systems will not be selected primarily because they give the greatest dollar return or the greatest unit output of timber.			

SPECIAL ATTENTION WILL BE GIVEN TO LOGGING PRACTICES THAT ENCOURAGE DIVERSITY OF WILDLIFE HABITAT; FOR EXAMPLE, SMALL CLEARCUTS AND OTHER SILVICULTURAL TECHNIQUES MAY BE USED TO INCREASE BROWSE PRODUCTION IN KEY WINTER HABITAT.

Special attention will be given to logging practices that encourage diversity of wildlife habitat; for example, small clearcuts and other silvicultural techniques may be used to increase browse production in key winter habitat.

Maximum Size of Created Openings

Alternative A (Area Guide)	Alternative B	Alternative C	Alternative D
Clearcutting and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method only where there is established a maximum size limit of 160 acres to be cut at one place and time. The established limit may be exceeded only after appropriate public notice and review by the responsible Forest Service officer one level above the Forest Service officer who normally would approve the harvest	NFMA regulations provide that 100 acres is the maximum size limit of created openings to be allowed for the hemlock-sitka spruce forest type of coastal Alaska, unless excepted under specific conditions. The more pure stands of both species, the cedar type, the Chugach white spruce, and coastal hardwoods type will also be governed by the	Same as Alternative B.	Seventy-five acres is the maximum size of created openings allowed, unless excepted under the same conditions that apply to Alternatives B and C. Approval of the Regional Forester and a 60-day public review period are required before the size limit may be exceeded. NOTE: Alternative E (Preferred) is on the next page.

Maximum Size of Created Openings (continued)

Alternative A (Area Guide)	Alternative B	Alternative C	Alternative E (Preferred)
proposal. Such limits will not apply to the size of areas cut as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm.	100-acre limit. (See page 2-3 for rationale.)		100 ACRES IS THE MAXIMUM SIZE OF CREATED OPENINGS. WHERE IT IS DETERMINED BY THE INTERDISCIPLINARY TEAM THAT EXCEPTIONS TO THE SIZE LIMITATION ARE WARRANTED, THE ACTUAL SIZE LIMITATION OF OPENINGS MAY BE UP TO 100 PERCENT GREATER FOR FACTOR 9 AND UP TO 50 PERCENT GREATER FOR ALL OTHER FACTORS WITH THE APPROVAL OF THE FOREST SUPERVISOR. FOREST SUPERVISORS WILL IDENTIFY THE PARTICULAR CONDITIONS UNDER WHICH THE LARGER SIZE IS WARRANTED AND EXPLAIN THE BENEFITS TO BE GAINED. EXCEPTIONS TO THE 100-ACRE SIZE LIMIT IN EXCESS OF 50 PERCENT (100 PERCENT FOR FACTOR 9) ARE PERMITTED ON AN INDIVIDUAL TIMBER SALE BASIS AFTER 60 DAYS PUBLIC NOTICE AND REVIEW AND APPROVAL BY THE REGIONAL FORESTER.
	Recognizing that harvest units must be designed to accomplish management goals, created openings may be larger where larger units will produce a more desirable contribution of benefits.	Same as Alternative B.	
	Where it is determined that exceptions to the size limitations are warranted based on criteria below, the actual size limit will be 350 acres. Review by the Regional Forester is required.	Where it is determined that exceptions to the size limitation are warranted, the actual size will be determined through an interdisciplinary process. Following a 60-day public review period, approval of the Regional Forester is required.	
	Factors to be considered to determine when a larger size may be permitted are:	Same as Alternative B.	Same as Alternative B.
	<ol style="list-style-type: none"> 1. Topography 2. Relationship of units to other natural or artificial openings and proximity of units 3. Coordination and consistency with adjacent management areas 4. Effect on water quality and quantity 5. Visual absorption capability 		

Maximum Size of Created Openings (continued)

Alternative A (Area Guide)	Alternative B	Alternative C	Alternative E (Preferred)
	6. Effect on wildlife and fish habitat		
	7. Regeneration requirements for desirable tree species, based upon latest research		
	8. Transportation and harvesting system requirements		
	9. Natural and biological hazards to the survival of residual trees and surrounding stands		
	10. Relative total costs of preparation, logging, and administration of harvest cuts		
	Forest Supervisors will identify the particular conditions under which the larger size is warranted and explain the benefits to be gained.	Same as Alternative B.	FOREST SUPERVISORS WILL IDENTIFY THE PARTICULAR CONDITIONS UNDER WHICH A LARGER SIZE IS WARRANTED AND WILL EXPLAIN THE BENEFITS TO BE GAINED.
	The established limits and exceptions do not apply to the size of areas harvested as a result of natural catastrophic conditions, such as fire, insect and disease attack, or windstorm.		THE ESTABLISHED LIMITS AND EXCEPTIONS DO NOT APPLY TO THE SIZE OF AREAS HARVESTED AS A RESULT OF NATURAL CATASTROPHIC CONDITIONS, SUCH AS FIRE, INSECT AND DISEASE ATTACK, OR WINDSTORM.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management

Alternative A (Area Guide)

Clearcutting and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method only where:

- o cutting blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain.
- o cutting units are located so that timber stands can be logged without creating inoperable areas or creating areas where future logging will destroy needed regeneration established after earlier removal. Unit spacing and subsequent entries will be done on the basis of total area planning by compartment.

Sale layouts will include provisions for the protection and enhancement of wildlife and fish resources and habitat as described elsewhere in the Guide.

Sale layouts, where feasible, will include a portion of marginal or low-volume timber stands.

Alternative B (Preferred)

WHEN OPENINGS ARE CREATED IN THE FOREST BY THE APPLICATION OF EVEN-AGED MANAGEMENT, THE OPENINGS WILL BE SHAPED AND BLENDED WITH THE NATURAL TERRAIN TO ACHIEVE AESTHETIC QUALITY AND WILDLIFE HABITAT OBJECTIVES TO THE EXTENT PRACTICABLE. OPENINGS WILL BE LOCATED TO ACHIEVE THE DESIRED COMBINATION OF MULTIPLE OBJECTIVES. DISTRIBUTION OF OPENINGS OVER TIME WILL CONFORM TO A TOTAL COMPARTMENT MULTIENTRY LAYOUT PLAN AND WILL BE SCHEDULED, TAKING INTO CONSIDERATION THE ASSUMPTIONS USED IN THE ANALYTICAL ALLOCATION MODEL. THE MULTIENTRY LAYOUT PLAN MUST CONSIDER ALL LANDS, INCLUDING LANDS UNDER OTHER OWNERSHIPS. ASSUMPTIONS USED FOR PLAN AMENDMENTS OR REVISIONS SHOULD REVIEW ACTIVITIES ALREADY SCHEDULED. IN DEVELOPING MULTIENTRY LAYOUT PLANS, STEPS 1 THROUGH 6 WILL BE FOLLOWED:

1. IDENTIFY AND DELINEATE NONFOREST AND NONCOMMERCIAL FOREST.
2. IDENTIFY AND DELINEATE NATURAL UNREGULATED AREAS, SUCH AS V-NOTCHES, MUSKEGS, AND SENSITIVE SOILS.
3. IDENTIFY AND DELINEATE UNREGULATED AREAS BASED ON MANAGEMENT CONSIDERATIONS, SUCH AS MUNICIPAL WATERSHEDS, ADMINISTRATIVE SITES, RECREATION AREAS, OFFSHORE ISLANDS LESS THAN 50 ACRES, AND OTHER CONSIDERATIONS.
4. IDENTIFY AND DELINEATE AREAS REQUIRED TO MEET SENSITIVE WILDLIFE AND FISHERIES HABITAT NEEDS, SUCH AS BALD EAGLE NEST TREES AND PERCHING AND ROOSTING AREAS; KEY WINTER HABITATS FOR BLACK-TAILED DEER, MOOSE, AND MOUNTAIN GOATS; KEY RESTING, COVER, AND FEEDING AREAS; AND STREAM PROTECTION ZONES.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management (continued)

Alternative A (Area Guide)

Alternative B (Preferred)

5. IDENTIFY AND DELINEATE AREAS OF EXTENDED ROTATION TO MEET WILDLIFE, VISUAL, OR OTHER MANAGEMENT OBJECTIVES.
6. HARVEST SCHEDULING WILL NOT INCLUDE LANDS THAT WILL BE RETAINED TO MEET THE NEEDS OF OTHER RESOURCES, UNLESS THE CONTRIBUTION TO BE RETAINED IS TIME SPECIFIC.

HARVEST-UNIT SELECTION FOR EACH ENTRY WILL CONSIDER:

1. TOPOGRAPHY--DISPERSION OF OPENINGS WILL CONSIDER TOPOGRAPHY AS IT INFLUENCES TECHNOLOGICAL ABILITY TO HARVEST TIMBER, LAYOUT LOCATIONS TO AVOID BLOWDOWN, NATURAL DRAINAGE PATTERNS, AND PROVISIONS FOR FLEXIBILITY NEEDED IN LANDSCAPE DESIGN.
2. RELATIONSHIP TO OTHER OPENINGS--AREAS ADJACENT OR CLOSE TO CREATED OPENINGS SHOULD NOT BE SCHEDULED FOR ENTRY UNTIL OPENINGS FROM AN EARLIER HARVEST ARE NO LONGER CONSIDERED OPENINGS OR OTHERWISE MEET MANAGEMENT PRESCRIPTION OBJECTIVES. UNCUT BLOCKS OF REGULATED COMMERCIAL FOREST LAND MUST BE RETAINED IN SIZES AND SHAPES THAT WILL CONSTITUTE LOGICAL LOGGING UNITS.
3. VISUAL QUALITY--RESHAPING OR JOINING OF EXISTING OPENINGS MAY BE NECESSARY TO ACCOMPLISH VISUAL AND OTHER RESOURCE QUALITY OBJECTIVES.
4. WILDLIFE AND FISHERIES HABITAT-- WILDLIFE AND FISHERIES NEEDS OVER TIME MUST BE CONSIDERED TO MAINTAIN THE HABITAT POTENTIAL NEEDED TO ENSURE DESIRED POPULATION LEVELS.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management (continued)

Alternative A (Area Guide)

Alternative B (Preferred)

5. TRANSPORTATION SYSTEM--HARVEST WILL BE DISPERSED TO MAXIMIZE THE EFFECTIVENESS OF THE PROPOSED TRANSPORTATION SYSTEM IN MEETING OVERALL MANAGEMENT PRESCRIPTIONS FOR THE AREA PLANNED.

SALE LAYOUTS MUST INCLUDE A PORTION OF MARGINAL OR LOW-VOLUME TIMBER STANDS, IF THEY ARE INCLUDED WITHIN THE BOUNDARIES OF THE SALE AREA. (YIELD CALCULATIONS IN THE TONGASS LAND MANAGEMENT PLAN ARE BASED ON HARVESTING A PORTION OF THE MARGINAL STAND COMPONENT IN ADDITION TO A PROPORTION OF TECHNOLOGICALLY MARGINAL STANDS)).

State of Vegetation To Be Reached Before a Cutover Area Is No Longer Considered an Opening

Alternative A (Area Guide)

Alternative B

Alternative C (No Action, Preferred)

No Area Guide Policy

Openings created in the Forest by the application of even-aged management are no longer considered an opening when the regenerated vegetation meets one of the following criteria established as the primary consideration:

1. Appearance--Where visual quality is the primary consideration, regenerated vegetation must be of sufficient height and density to mask strumps and other logging debris before a cut is no longer considered an opening. The new stand must also be of sufficient size to provide gradation of contrast between adjacent uncut stands and newly planned harvest units. Crown closure should be at least 60 percent for stands, with no precommercial thinning. (Crown closure will not be a criterion for stands with precommercial thinning prescriptions.) Spacing

MINIMUM STOCKING LEVELS WILL BE BASED ON SPACING, DISTRIBUTION, AND STAND MANAGEMENT OBJECTIVES RATHER THAN THE NUMBER OF TREES PER ACRE, IN ACCORDANCE WITH REGENERATION STOCKING GUIDES CONTAINED IN FOREST SERVICE HANDBOOK 2409.26d, REGION 10, SILVICULTURAL EXAMINATION AND PRESCRIPTION HANDBOOK.

CREATED OPENINGS WILL BE ADEQUATELY STOCKED WITH DESIRABLE TREE SPECIES, WHICH ARE APPROXIMATELY 5 FEET IN HEIGHT, ON NATIONAL FORESTS IN COASTAL ALASKA BEFORE THE AREA WILL NO LONGER BE CONSIDERED AN OPENING FOR THE PURPOSES OF LIMITATIONS ON SCHEDULING, LOCATIONS, AND

State of Vegetation That To Be Reached Before a Cutover Area Is No Longer Considered an Opening (continued)

Alternative A (Area Guide)	Alternative B	Alternative C (No Action, Preferred)
and height of the dominant vegetation will vary according to steepness of slope and distance from view.		SIZE OF ADDITIONAL CREATED OPENINGS ON NATIONAL FOREST SYSTEM LAND.
<p>2. <u>Wildlife habitat</u>--Where cover, travel routes, available food, and other wildlife features are designated the primary considerations, cutover areas are no longer considered openings when the dominant vegetation is evenly distributed over 75 percent of the area and reaches a height of approximately 10 feet.</p>		<p>THE BASIS FOR THIS DETERMINATION WILL BE THE THIRD-YEAR SILVICULTURAL SURVEY.</p>
<p>3. <u>Silviculture</u>--Minimum stocking levels will be based on spacing, distribution, and stand management objectives rather than the number of trees per acre in accordance with regeneration stocking guides contained in Forest Service Handbook 2409.26d, Region 10, Silvicultural Examination and Prescription Handbook.</p>		<p>FOREST SUPERVISORS WILL ADJUST HEIGHT AND DENSITY REQUIREMENTS FOR SPECIFIC RESOURCE MANAGEMENT CONSIDERATIONS, E.G., WILDLIFE HABITAT AND VISUAL QUALITY, TO PROVIDE A STATE OF VEGETATION THAT MEETS MANAGEMENT PRESCRIPTION OBJECTIVES.</p>
<p>The following guidelines will be considered as minimum requirements to achieve silvicultural goals.</p>		
<p>The state of vegetation in a created opening will contain merchantable tree species, a majority of which will have reached 5 feet in height and stocking of at least 300 well-distributed trees per acre on National Forests in coastal Alaska before the area will no longer be considered an opening for the purposes of limitations on scheduling, locations, and size of additional created openings on National Forest System land.</p>		

Alternative A (Area Guide)

Alternative B (Preferred)

IMPLEMENT NEW TECHNOLOGIES LEADING TO THE INCREASED UTILIZATION OF WOOD PRODUCTS ON ALASKA NATIONAL FORESTS.

ACHIEVE OPPORTUNITIES TO INCREASE TIMBER YIELDS ON NATIONAL FOREST SYSTEM LANDS IN ALASKA. CONTINUE MANAGEMENT PRACTICES, SUCH AS PLANTING, RELEASE, AND WEEDING, AS NEEDED, AND INSECT AND DISEASE CONTROL.

MAINTAIN THE TIMBER SUPPLY FROM THE TONGASS NATIONAL FOREST TO DEPENDENT INDUSTRY AT A RATE OF 4.5 BILLION BOARD FEET PER DECADE TO SUSTAIN EMPLOYMENT LEVELS.

ACHIEVE RPA TARGETS ON THE TONGASS NATIONAL FOREST WITH INVESTMENTS IN ADVANCED ROAD-ING, PRECOMMERCIAL THINNING, AND ADVANCED LOGGING SYSTEMS LAYOUT AND DEVELOPMENT.

MAINTAIN AND ENHANCE PRODUCTIVITY OF SUITABLE FORESTED LAND (ALL OWNERSHIPS) TO MINIMIZE INFLATIONARY IMPACTS OF WOOD PRODUCT PRICES ON THE DOMESTIC ECONOMY AND TO CONTRIBUTE TOWARD A NET NATIONAL EXPORT OF FOREST PRODUCTS BY THE YEAR 2030.

ACHIEVE AND MAINTAIN, WHERE POSSIBLE, THE PRODUCTIVITY OF COMMERCIAL TIMBER LANDS AT 90 PERCENT OF THEIR POTENTIAL LEVEL OF GROWTH, CONSISTENT WITH THE PROVISIONS OF NFMA.

Seeding or planting shall be used to reforest areas on which natural regeneration has not occurred within 4 years or where accelerated regeneration is desired. Genetically improved seed or trees will be used as they become available.

SEEDING OR PLANTING SHALL BE USED TO REFOREST AREAS ON WHICH NATURAL REGENERATION HAS NOT OCCURRED OR WHERE ACCELERATED REGENERATION IS DESIRED. GENETICALLY IMPROVED SEED TREES WILL BE USED AS THEY BECOME AVAILABLE.

Management Intensity (continued)

Alternative A (Area Guide)

Alternative B (Preferred)

EXAMINE ALL NATIONAL FOREST SYSTEM LANDS TREATED AFTER THE FIRST AND THIRD GROWING SEASONS. THIS REQUIREMENT WILL BE HANDLED IN THE FOLLOWING WAY:

1. EXAMINE ARTIFICIAL SEEDING OR PLANTING TREATMENTS 1 AND 3 YEARS AFTER TREATMENT.
2. NO FIRST-YEAR SURVEYS ARE REQUIRED IF THE SILVICULTURAL PRESCRIPTION ANTICIPATES NATURAL REGENERATION.
3. STANDS WILL BE CERTIFIED AS STOCKED IF THE THIRD-YEAR SURVEY INDICATES THAT THE AREA MEETS STOCKING STANDARDS.
4. SCHEDULE ANOTHER SURVEY NO LATER THAN SEVEN GROWING SEASONS AFTER HARVEST IF THE THIRD-YEAR SURVEY INDICATES THE AREA IS VERY LIKELY TO BE STOCKED, BUT MORE TIME IS REQUIRED TO MAKE THIS DETERMINATION.
5. PRESCRIBE ARTIFICIAL REGENERATION IF THE THIRD-YEAR SURVEY INDICATES THAT NATURAL REGENERATION IS HIGHLY UNLIKELY.
6. CONDUCT TIMBER STAND IMPROVEMENT PROJECT SURVEYS AS PART OF PROJECT INSPECTIONS OR WITHIN 1 YEAR OF COMPLETION. FOR MOST PROJECTS, NO THIRD-YEAR EXAMINATION WILL BE COMPLETED.

Artificial reforestation and timber stand improvement projects having benefits to other resources shall receive priority over those benefiting only one resource. Examples would be precommercial thinning in winter deer range and reforestation of areas having scenic value.

Forest fertilization shall be tested, utilizing research or administrative studies of the soils and the climatic and topographic conditions of the site, prior to being used on an operational basis.

SCHEDULE ARTIFICIAL REFORESTATION AND TIMBER STAND IMPROVEMENT PROJECTS HAVING BENEFITS TO OTHER RESOURCES BEFORE THOSE BENEFITTING ONLY ONE RESOURCE. FOR EXAMPLE, GIVE PRIORITY TO PRECOMMERCIAL THINNING IN WINTER DEER RANGE AND REFORESTATION OF AREAS HAVING SCENIC VALUE.

FOREST FERTILIZATION MAY BE USED ON SOILS DETERMINED TO HAVE INSUFFICIENT NUTRIENT STATUS TO ALLOW THE SUCCESSFUL ESTABLISHMENT OF CONIFER COVER WITHIN 5 YEARS.

Management Intensity (continued)

Alternative A (Area Guide)

Alternative B

MANAGEMENT INTENSITY ALSO INCLUDES THE SELECTION, SCHEDULING, AND IMPLEMENTATION OF THE FOLLOWING ADDITIONAL SILVICULTURAL PRACTICES:

1. COMMERCIAL THINNING
2. SALVAGE CUTTING
3. PRESCRIBED BURNING
4. PRECOMMERCIAL THINNING
5. FERTILIZATION
6. RELEASE OF CONIFERS FROM OVER-
TOPPING VEGETATION
7. SITE PREPARATION FOR PLANTING

DESCRIPTIONS OF SILVICULTURAL PRACTICES ARE CONTAINED IN REGIONAL GUIDE, CHAPTER 3, TIMBER ELEMENT.

Alternative A (Area Guide)

Require utilization and optimum practical use of wood material, both in the woods and at the mill. Promote the use of wood for its highest value product commensurate with present and anticipated supply and demand. Improvements in utilization will be made through sale preparation, appraisals, contract administration, and dissemination of research information. Sale and utilization of dead, blown-down, and other deteriorating timber will receive high priority.

Alternative B (Preferred)

REQUIRE UTILIZATION AND OPTIMUM PRACTICAL USE OF WOOD MATERIAL. PROMOTE THE USE OF WOOD FOR ITS HIGHEST VALUE PRODUCT COMMENSURATE WITH PRESENT AND ANTICIPATED SUPPLY AND DEMAND. IMPROVEMENTS IN UTILIZATION WILL BE MADE THROUGH SALE PREPARATION, APPRAISALS, CONTRACT ADMINISTRATION, AND DISSEMINATION OF RESEARCH INFORMATION. SALE AND UTILIZATION OF DEAD, BLOWN-DOWN, AND OTHER DETERIORATING TIMBER WILL RECEIVE HIGH PRIORITY. UTILIZATION STANDARDS ARE FOR HARVEST SCHEDULING PURPOSES. ACTUAL SALE CONTRACTS WILL CONTINUE TO EMPHASIZE MAXIMUM FEASIBLE UTILIZATION STANDARDS.

THE FOREST SERVICE WILL CONTINUE TO GROW AND MANAGE QUALITY TIMBER STANDS OF SAW-TIMBER SIZE, EXCEPT FROM FOREST TYPES AND SITES ON WHICH IT IS NOT PRACTICABLE TO PRODUCE CONTINUOUS CROPS OF SAWTIMBER SIZE OR QUALITY.

Alternative C

Same as Alternative B, except that utility volumes are included in the allowable sale quantity calculations.

Utilization Standards

Utilization Standards (continued)

Alternative C

Alternative A (Area Guide)

Alternative B (Preferred)

MINIMUM UTILIZATION STANDARDS WILL BE REVIEWED PERIODICALLY AND ADJUSTED ACCORDING TO CURRENT UTILIZATION TRENDS, MARKET CONDITIONS, AND TECHNOLOGICAL STATE-OF-THE-ART.

MINIMUM SAWLOG MERCHANTABILITY STANDARDS FOR THE TONGASS AND CHUGACH NATIONAL FORESTS ARE DISPLAYED BELOW.

1. FOR STANDS CLASSIFIED AS "REGENERATED" IN TIMBER HARVEST SCHEDULES, UTILIZATION STANDARDS WILL BE AS FOLLOWS:

TONGASS AND CHUGACH NATIONAL FORESTS

SPECIES/PRODUCT - ALL SAWLOGS

MINIMUM d.b.h. - 7 INCHES

MINIMUM TOP d.i.b. - 5 INCHES

PERCENT SOUND VOLUME - 25 PERCENT

THE VOLUME OF ENDEMIC MORTALITY, CULL, OR UTILITY LOGS WILL NOT BE INCLUDED IN ALLOWABLE SALE QUANTITY CALCULATIONS, BECAUSE THESE AMOUNTS VARY FROM SITE TO SITE, AND ADEQUATE ESTIMATES OF CULL OR UTILITY VOLUME ARE NOT AVAILABLE.

2. ON EXISTING OLD-GROWTH STANDS, THE MINIMUM UTILIZATION STANDARDS TO BE USED FOR DETERMINING THE HARVEST SCHEDULES^{1/} ARE:

TONGASS NATIONAL FOREST

SPECIES/PRODUCT - ALL SAWLOGS

MINIMUM d.b.h. - 9 INCHES

MINIMUM LOG LENGTH - 12 FEET

MINIMUM TOP d.i.b. - 6 INCHES

PERCENT SOUND VOLUME - 33 1/3 PERCENT

^{1/} In determination of harvest levels, slight variations are allowed to conform to existing inventories and yield tables.

Alternative A (Area Guide)

Timber will usually be cut on the following schedule of priorities: deteriorating stands, incompletely stocked stands, and large stands being managed for age class diversity. Generally, sites in each category having the highest potential productivity should be cut first.

The Forest Service will continue the program to salvage beach logs in cooperation with the State of Alaska. Where compatible with environmental protection objectives, private enterprise will be encouraged to utilize timber resources. The Forest Service will plan sale offerings to encourage competitive bidding and in a range of sizes and species that provides opportunities for small business enterprises. A fair share of timber will be set aside for small business operators.

Alternative B (Preferred)

CHUGACH NATIONAL FOREST

SPECIES/PRODUCT - ALL SAWLOGS
MINIMUM d.b.h. - 9 INCHES
MINIMUM LOG LENGTH - 8 FEET
MINIMUM TOP d.i.b. - 6 INCHES
PERCENT SOUND VOLUME - 33 1/3 PERCENT

FOREST SUPERVISORS WILL MAKE PROVISIONS FOR THE YARDING OF UNMERCHANTABLE MATERIAL FROM SALES WHERE THERE ARE TRANSPORTATION LINKS TO ESTABLISHED COMMUNITIES, TO IMPROVE UTILIZATION OF FIREWOOD MATERIAL.

HARVEST SCHEDULING WILL CONSIDER PRIORITIES FOR DETERIORATING STANDS, INCOMPLETELY STOCKED STANDS, AND STANDS THAT HAVE ACHIEVED THEIR PRODUCTIVE POTENTIAL. SCHEDULING ALSO WILL CONSIDER THE GOALS AND OBJECTIVES OF THE FOREST PLAN AND THE MOST EFFICIENT WAY OF ACHIEVING THEM.

THE FOREST SERVICE WILL CONTINUE THE PROGRAM TO SALVAGE BEACH LOGS IN COOPERATION WITH THE STATE OF ALASKA. THE FOREST SERVICE WILL PLAN SALE OFFERINGS TO ENCOURAGE COMPETITIVE BIDDING IN A RANGE OF SIZES AND SPECIES THAT PROVIDES OPPORTUNITIES FOR SMALL BUSINESS ENTERPRISES.

Alternative C

Transportation and Utility Corridors

Alternative A (Area Guide)

Transportation corridor allocation and development will be performed in compliance with the policies and criteria established in the other resource accounts. Projects will be planned, located, designed, and constructed to recognize other resource values and to minimize anticipated adverse environmental impacts.

Transportation corridor alteration and development will be coordinated with the Canadian, Federal, State, and local government agencies having jurisdictional, delegated, or assigned responsibilities connected with either corridor development or land management.

Alternative B (Preferred)

TRANSPORTATION AND UTILITY CORRIDOR PLANNING AND DEVELOPMENT WILL BE IN COMPLIANCE WITH THE POLICIES AND CRITERIA ESTABLISHED IN THIS AND OTHER RESOURCE ELEMENTS. TRANSPORTATION FACILITIES CONSTRUCTED BY THE FOREST SERVICE WILL MEET STANDARDS REQUIRED FOR THE USE, MANAGEMENT, AND PROTECTION OF THE NATIONAL FOREST SYSTEM, CONSIDERING SAFETY, COSTS OF TRANSPORTATION (INCLUDING OPERATION AND MAINTENANCE), AND IMPACTS ON OTHER RESOURCES.

TRANSPORTATION AND UTILITY CORRIDOR PLANNING AND DEVELOPMENT WILL BE COORDINATED WITH THE CANADIAN, FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES, AS WELL AS PRIVATE LANDOWNERS.

TRANSPORTATION CONNECTIONS BY THE FOREST SERVICE WILL NOT BE MADE BETWEEN COMMUNITIES OR EMERGING COMMUNITIES WITHOUT THE PARTICIPATION AND COLLABORATION OF STATE AND LOCAL GOVERNMENTS, COMMUNITIES, AND AFFECTED INDIVIDUALS.

THE STATE OF ALASKA HAS IDENTIFIED SEVERAL NATURAL TRANSPORTATION CORRIDORS IN SOUTHEAST AND SOUTHCENTRAL ALASKA FOR POSSIBLE LAND TRANSPORTATION FACILITIES. THE PRIMARY FUNCTION OF THESE CORRIDORS IS FOR THE TRANSPORTATION OF PEOPLE, GOODS, AND SERVICES BETWEEN COMMUNITIES.

CONSIDERATION OF THE ALLOCATION OF LANDS ALONG THESE CORRIDORS FOR TRANSPORTATION AND UTILITY PURPOSES IS REQUIRED IN FOREST PLANNING. ALLOCATED TRANSPORTATION CORRIDORS WILL BE INCLUDED IN FOREST HIGHWAYS AS APPROPRIATE.

Transportation and Utility Corridors (continued)

Alternative A (Area Guide)

The Forest Service, as the principal land manager in Southeast Alaska, will review all proposals and plans of any Federal, State or local government agency, firm, or individual for any development of a new transportation corridor within the Tongass National Forest. Changes to an existing corridor development within the Tongass National Forest shall be contingent upon the approval of the appropriate Forest Service line officer. Approval will require documentation of sufficient public involvement. The Forest Plan will indicate the locations of transportation corridors identified to date.

The Forest Service will continue to engage in comprehensive and coordinated transportation planning with other Federal, State, and local government agencies to provide a forest-wide perspective of how individual networks fit into the overall transportation system.

Approved transportation corridor proposals and plans will be integrated with present and future land management plans at all planning levels to utilize each corridor resource to the greatest extent possible.

Transportation planning will be integrated with present and future land management plans at the allocation, prescription, and implementation levels of planning. Plans will identify, as far as possible, what transportation modes will be developed for a given area.

Alternative B (Preferred)

TRANSPORTATION PLANNING WILL BE INTEGRATED WITH PRESENT AND FUTURE FOREST AND RESOURCE LAND MANAGEMENT PLANS TO THE EXTENT FEASIBLE. FOREST PLANS WILL SHOW EXISTING AND ANTICIPATED FOREST ARTERIAL AND MAJOR COLLECTOR CORRIDORS. PLANS WILL IDENTIFY, AS FAR AS POSSIBLE, WHAT MODES OF TRANSPORTATION WILL BE DEVELOPED FOR A GIVEN AREA. WATER TRANSPORTATION MODES AND ANTICIPATED TERMINAL TRANSPORTATION FACILITIES WILL BE SPECIFIED WHERE LOGGING ACTIVITIES, FERRY TERMINALS, PUBLIC ACCESS, BARGE RAMPS, AND SIMILAR FACILITIES ARE INTENDED. THE LIKELY CORRIDOR LOCATIONS FOR OTHER TRANSPORTATION FACILITIES WILL BE SUBSEQUENTLY DEVELOPED.

APPROVED TRANSPORTATION AND UTILITY CORRIDOR PROPOSALS AND PLANS WILL BE INTEGRATED WITH FOREST PLANS AT ALL PLANNING LEVELS TO UTILIZE EACH CORRIDOR TO THE GREATEST EXTENT POSSIBLE. CORRIDORS FOR FUTURE UTILITIES USAGE WILL FOLLOW EXISTING AND FUTURE LAND TRANSPORTATION ROUTES TO THE EXTENT PRACTICABLE AND APPROPRIATE. ELECTRICAL TRANSMISSION FACILITIES CONSTRUCTED AND MAINTAINED WITHOUT ROAD ACCESS NEED NOT FOLLOW ROAD CORRIDORS.

EXISTING TRANSPORTATION CORRIDORS ARE RECOGNIZED AS THE COMBINATION OF LAND, WATER, AND AIR TRANSPORTATION MODES THAT PROVIDE TRANSPORTATION ACCESS BETWEEN COMMUNITIES AND OTHER DEVELOPED USE AREAS IN ALASKA. EXISTING UTILITY CORRIDORS ARE THOSE LAND- AND WATER-BASED ROUTES OVER WHICH PIPELINES, ELECTRICAL TRANSMISSION LINES, OR COMMUNICATION LINES TRAVERSE WHERE

Transportation and Utility Corridors (continued)

Alternative A (Area Guide)

Alternative B (Preferred)

UTILITIES ARE BEING PROVIDED FROM THE SOURCE TO A COMMUNITY OR MAJOR USER OR BETWEEN COMMUNITIES.

Air Quality

Alternative A (Area Guide)

Alternative B (Current Direction, Preferred)

No Area Guide Policy

SMOKE MANAGEMENT WILL BE COORDINATED WITH THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO ENSURE THAT AIR-QUALITY INCREMENTS ARE NOT EXCEEDED. LOCAL SOURCES OF EMISSIONS WILL BE EVALUATED TO ENSURE THAT AIRSHED INTEGRITY IS MAINTAINED.



United States
Department of
Agriculture

Forest
Service

Alaska Region

P.O. Box 1628
Juneau, AK 99802

Reply to: 1920

Date: December 19, 1983

Dear Forest Friend:

Enclosed is the Regional Guide and Final Environmental Impact Statement for the Alaska Region. The Regional Guide contains a Summary of the Analysis of the Management Situation, Regional Management Direction and Monitoring and Evaluation Requirements for the Alaska Region as provided in the planning regulations of the National Forest Management Act (NFMA). The Final Environmental Impact Statement discloses the effects of implementing the standards and guidelines selected by the Alaska Region and describes the alternatives proposed to resolve significant issues, concerns and opportunities that exist within the Region. These are in response to national direction from the Chief of the Forest Service, the 1980 Recommended Renewable Resources Program (RPA), and are in compliance with the National Environmental Policy Act.

We have carried forward the guidance and intent of the earlier Southeast Alaska Area Guide in this Regional Guide.

It has been some time since we published the Draft Regional Guide and EIS. During the period since we received your comments, we have made every effort to carefully integrate them into the Guide and Final EIS.

We appreciate the help you have given us in the development of these Regional Standards and Guidelines and look forward to using them in the management of the Region in the coming years.

Sincerely,

Michael A. Sandor

JOHN A. SANDOR
Regional Forester

Enclosures (2)



RECORD OF DECISION
FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE
STANDARDS AND GUIDELINES
IN THE
ALASKA REGIONAL GUIDE

U.S. Department of Agriculture, Forest Service,
Covering Forest Service Programs that Affect the State of Alaska

I. INTRODUCTION

This Record of Decision documents the decision reached by the Forest Service regarding approval of the Alaska Regional Guide and the standards and guidelines contained therein. It also describes the alternatives that were considered and provides the rationale for the selected alternatives.

Implementing regulations 1/ for the National Forest Management Act of 1976 (NFMA) 2/ require development of a Regional Guide for each administratively designated Forest Service Region. 3/

The Final Environmental Impact Statement (EIS) discloses alternative Regional standards and guidelines to facilitate land and resource management planning for the two National Forests within the Alaska Region of the National Forest System. The Final EIS also describes parts of the environment that will be affected and the potential environmental consequences of implementing either the proposed standards and guidelines or the alternatives.

The decisions made in this Record of Decision relate to the standards and guidelines and their corresponding alternatives that were developed to provide policy direction for issues and concerns that could best be addressed at the Regional level. These issues and concerns, appearing in the Regional Guide and its Final Environmental Impact Statement, were identified during the scoping process and in response to the revised implementing regulations of the National Forest Management Act of 1976. The issues and concerns were evaluated against policy in the previously adopted Southeast Alaska Area Guide. The policies in the Area Guide were analyzed for their adequacy and the extent to which a modification or new policy would contribute to issue resolution. If the intent of the policy was correct, but minor clarification or elaboration was needed, then the modification was made without detailed analysis in the EIS.

1/ Federal Register, Volume 47, No. 190, September 30, 1982

2/ 90 Stat. 2949, et. seq.; 16 USC 1601-1614; 36 CFR 219

3/ 36 CFR 219.8.

Area Guide policies that are regional in scope have been adopted as Regional standards and guidelines. Policies relating to the management of resources such as wildlife, minerals, and recreation remain essentially unchanged. Regional standards and guidelines relative to such resources are thus carried forward from the Southeast Alaska Area Guide and made a part of this document, though not analyzed individually in the EIS.

For policies that needed major modification so as to be more responsive to issues and concerns, proposed standards and guidelines, as well as alternatives to them, were developed and addressed in the EIS. The National Forest Management Act of 1976 specifically addressed and changed policies relating to the management of the timber resource, utility and transportation corridors, and air quality on the National Forests. These NFMA requirements are, therefore, addressed in the eight management categories for which alternatives are considered in the Final EIS.

II. DECISIONS

Based on the analysis and evaluation of the public response and review of the Draft Environmental Impact Statement, the proposed Alaska Regional Guide, and its Final Environmental Impact Statement, it is my decision to approve the Regional Guide as provided in the Regulations 36 CFR 219.8 and to adopt the standards and guidelines included in the alternatives selected below.

Alternatives indicated by an asterisk (*) are those approved in this Record of Decision. Considering economic and social considerations, as well as physical and biological effects, these alternatives represent the environmentally preferable alternatives.

Appropriate Harvest Cutting Methods

Alternative A — (Area Guide policy, No Action) ^{4/} Even-aged management will be used only where the cutting method, if clearcutting, is optimum; otherwise, where it is appropriate other cutting methods will be used to meet the objectives and requirements of the relevant land and resource management plan. Chapter 2 of the EIS displays additional requirements.

Alternative B -- Even-aged harvest cutting methods are prescribed for all species.

Alternative C — Uneven-aged harvest cutting methods are prescribed for all species.

* Alternative D -- Even-aged harvest cutting methods are prescribed for all species, except where uneven-aged management is needed to meet other resource objectives. Clearcutting will be used only where it is silviculturally sound. Chapter 2 of the EIS displays additional requirements. More discussion of regeneration cutting methods and silvicultural standards for Alaska coastal forest types is found in Chapter 3 of the Regional Guide.

^{4/} "Area Guide policy, No Action" in the context of this document means continuation of current direction.

Alternative Selected and Rationale

Alternative D is selected for implementation for the following reasons:

Flexibility is needed in the application of harvest cutting methods to achieve the management goals associated with outdoor recreation, water quality, fisheries, wildlife, and visual quality, as well as wood fiber production. Alternative B (use even-aged management only) and Alternative C (use uneven-aged management only) do not provide the flexibility needed to select the appropriate harvest cutting methods. This flexibility is provided in both Alternatives A and D. Alternative D is preferred because more background guidance for making the decision about appropriate harvest cutting methods is given.

The following examples illustrate how flexibility in choosing the appropriate harvest cutting methods is preferred in achieving management goals. In an area adjacent to a road passing through an area of hemlock-spruce, single-tree selection or group selection (uneven-aged silvicultural methods) may be the most appropriate harvest cutting methods to regenerate the stand and, at the same time, maintain visual quality. Visual quality might be enhanced by clearcutting (even-aged silvicultural method) to open a vista to a unique or beautiful view for the enjoyment of Forest visitors.

Site-specific decisions are dependent on the goals of the individual management areas and the characteristics of the individual forest stands and cover types within them. The selected alternative provides the appropriate direction from the Regional level because it specifies harvest methods appropriate for use in the Region, based upon research findings and experience in regeneration. It leaves to the discretion of trained professionals the choice of methods to employ within the latitude given by this Regional direction. Forest-level decisions will be based upon the conditions of the individual site and the multiple-use management goals of the management area within which cutting occurs.

Maximum Size of Created Openings

Alternative A — (Area Guide policy, No Action) 160-acre maximum opening.

Alternative B -- 100-acre maximum opening with exceptions to 350 acres.

Alternative C — 100-acre maximum opening.

Alternative D -- 75-acre maximum opening.

* Alternative E - 100-acre maximum opening with exceptions of up to 50 percent larger under specific circumstances with approval of the Forest Supervisor. Openings may be up to 100 percent larger for the protection of surrounding timber stands from natural and biological hazards when determined after review by an interdisciplinary team and approval by the Forest Supervisor.

Under all the alternatives, openings larger than those indicated may be permitted on an individual timber sale basis after 60-days public notice and review and approval by the Regional Forester. The established limits and exceptions do not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect or disease attack, or windstorm.

The above alternative maximum opening standards and guidelines apply to all forest types. Hemlock-Sitka spruce is, by far, the predominant forest type. Cedar and hardwoods are usually considered to be a component of the broad hemlock-Sitka spruce ecotype in Southeast Alaska. While the white spruce and interior hardwoods on the Chugach National Forest are now recognized as distinct forest types, their occurrence as a species is comparatively minor; they constitute 0.1 and 0.3 percent of the net volume of live saw timber, respectively. In addition, white spruce is extensively hybridized with Sitka spruce when both occur on the Kenai Peninsula.

Interior hardwoods are generally found in association with white-black spruce and mountain hemlock stands, becoming established after stand openings are created by fire, blowdown, insect or disease infestations, or timber harvesting. They are, over time, succeeded by white spruce or other associated conifers.

Alternative Selected and Rationale

Alternative E is selected for implementation for the following reasons:

The 100-acre maximum size opening is sufficient to meet the regeneration requirements of all the forest cover types of the Region. It is usually large enough to provide for silvicultural control of insects, disease, and other damaging agents.

Adopting this standard and guideline does not mean that all openings will be 100 acres or more in size. The Area Guide 160-acre maximum standard has been in effect in the Region for approximately 6 years, and, during that time, the average size of openings has been less than 75 acres. Site conditions, site characteristics, or the management goals of the area where the individual stands occur have dictated openings less than the maximum size allowed. The larger clearcuts allowed as exceptions under both Alternatives B and E might result in one of several benefits such as better monetary returns to the public by reducing miles of road required per acre harvested in the short run; improved control of dwarf mistletoe infection and, consequently, improved second-generation wood fiber yield; improved windfirm conditions; enhanced opportunities to establish logical yarding settings consistent with current logging systems technology; and fewer individual harvest units.

Size is one of the variables governing the use of openings by wildlife. For example, where forage for wildlife such as deer is needed, small openings may be more appropriate. The abundant edge, shorter escape routes, and diversity created by harvesting in numerous smaller patches can increase the distribution and population levels of small bird and mammal species. At the same time, very small openings may result in an inadequate ratio between forage areas and cover areas for some species such as deer.

In some areas, visual management goals may require smaller openings to maintain visual quality in foreground and middleground views. In other cases, larger openings will be needed when reshaping existing clearcuts to blend with the natural terrain or to meet other visual management objectives.

From the standpoint of keeping stands free from insects, disease, and other damaging agents, the 100-acre maximum would usually provide sufficient opportunity for control.

Clearly, there is no fixed rule to apply to determine the desirable size of an opening in every circumstance. The size and other characteristics of openings to be created by even-aged management will be designed on a project by project basis. There are beneficial aspects to all five alternatives. Under Alternative E, where openings larger than 100 acres but less than 150 acres are shown to be needed by an interdisciplinary analysis, exceptions may be made. To protect adjacent stands from natural or biological hazards, an opening may be up to 200 acres. Where greater size is needed, such treatment may be undertaken on an individual timber sale basis after 60-days public notice and review and approval by the Regional Forester.

Dispersal and Size Variation of Tree Openings Created by Even-aged Management

Alternative A - (Area Guide policy, No Action) Determine dispersal and size variation on a site-by-site basis, shaping and blending to the natural terrain. Design spacing and subsequent entries, using total compartment planning, to avoid creating inoperable areas or risk of damage to regenerated stands. Design units to protect or enhance habitat and, where possible, to include marginal or low-volume stands.

* Alternative B - In addition to the direction provided in Alternative A, this alternative specifies seven multi-entry layout planning steps, such as identifying and delineating areas that have special resource objectives or management constraints. It also lists considerations to be used in selecting harvest units, such as not scheduling entry until adjacent or nearby areas are no longer openings. Refer to the discussion in Chapter 3 of the Regional Guide for these additional constraints.

Alternative Selected and Rationale

Alternative B was selected for the following reasons:

Goals for all multiple natural renewable resources, as specified in Alternative B are considered in the proposed treatment of National Forest System land and resources. These goals, and the site-specific characteristics of the treatment area, determine the size and shape the tree openings should take and their juxtaposition with one another.

For instance, the characteristics of a landscape will significantly influence the size variation and dispersal of created tree openings so that they borrow from and repeat the lines and patterns that exist in the characteristic landscape. Dispersal and size of openings should also be governed by the needs of wildlife species for food, edge, hiding and thermal cover, and snow interception. Alternative B provides an extensive description of the

considerations to be made for short- and long-term planning. It can be expected to result in a more uniform approach to attaining goals related to visual quality, watershed conditions, and wildlife and fish habitat, as well as goals associated with wood fiber production and logging technology.

State of Vegetation That Will Be Reached Before A Cutover Area Is No Longer Considered An Opening

Alternative A - No Area Guide policy

Alternative B - An area will no longer be considered an opening when the regenerated vegetation meets criteria associated with the management objective established for that area. Criteria have been developed to enhance visual quality, wildlife habitat, and silviculture. Silvicultural criteria require 300 well-distributed trees of merchantable species per acre, a majority of which have reached 5 feet in height.

* Alternative C - (No Action) Silvicultural criteria will be used for determining when an opening is no longer an opening unless the Forest Supervisor adjusts the requirements for specific resource considerations to meet management objectives. Adequate stocking with desirable tree species that are approximately 5 feet in height is the standard.

Alternative Selected and Rationale

Alternative C is selected for implementation for the following reasons:

It represents a minimum condition to be achieved in response to revegetating an opening. It provides for a minimum height, but leaves to the land manager the determination of stocking adequacy. Alternative C does not preclude the opportunity to satisfy visual, wildlife, or other silvicultural needs that warrant the application of higher standards deemed appropriate through the interdisciplinary process.

Alternative C may result in better opportunities to achieve a more uniform gradient of regenerated stand heights, thus improving the visual contrast where warranted. It also can be expected to be more economical. The major potentially negative effect of Alternative C is that some could perceive that the guidelines might be applied uniformly without consideration of other non-silvicultural values.

Alternative B provides a range of opportunities to satisfy visual, wildlife, and silvicultural needs, but is prescriptive beyond the needs that may be encountered on a case-by-case basis.

Management Intensity

Alternative A - (Area Guide Policy, No Action) Artificial reforestation and timber stand improvement projects producing benefits for several resources shall receive priority over those benefitting only one resource. Seed or plant areas not naturally regenerated within 4 years. Use genetic improvements when they become available. Test fertilization methods before use.

* Alternative B - Artificial reforestation and timber stand improvement projects producing benefits for several resources shall receive priority over those benefitting only one resource. Areas not naturally regenerated or where accelerated regeneration is desired, will be seeded or planted. Genetic improvements will be used when they become available. Fertilization may be used on soils determined to have insufficient nutrient status. Opportunities will be created to increase timber yields by continuing such practices as planting, release, weeding, and as needed, insect and disease control. Maintain the timber supply from the Tongass National Forest at 4.5 billion board feet per decade. Maintain and enhance timber productivity on all suitable forest land. Achieve and maintain the productivity of commercial timber lands at 90 percent of their potential level of growth, where possible, consistent with the provisions of NFMA. All treated National Forest System lands will be examined after the first and third growing seasons according to the requirements described in the standards and guidelines.

Alternative Selected and Rationale

Alternative B is selected for implementation for the following reasons:

Both Alternatives A and B provide for timber stand improvement practices that enhance multi-resource benefits, such as precommercial thinning in winter deer range and reforestation of areas having scenic values. They both stress the use of artificial reforestation and the use of genetic improvements and other methods when appropriate to increase wood production. The preferred alternative, Alternative B, increases management intensity in accordance with the Alaska Lands Act to achieve the timber harvest necessary to maintain the timber supply to dependent industry, while allocating 5.4 million acres of the Tongass National Forest to wilderness use. Alternative B also provides for the improved production, protection, and utilization of the timber resource. Finally, it provides that stands be examined in the first and third year following treatment.

Utilization Standards

Alternative A - (Area Guide Policy, No Action) Priorities for sale and utilization of the timber resource are recommended in the Area Guide policies. For instance, deteriorating timber on sites of highest potential productivity will receive high priority. Where compatible with other resource objectives, utilization of the timber resource will be encouraged. A program with the State of Alaska to salvage beach logs will be continued.

* Alternative B - Same as Alternative A, except that this alternative includes the utilization standards shown on pages 2-15 and 2-16 of the EIS. Provisions will be made for the yarding of unmerchantable material from sales where there are transportation links to established communities to improve utilization of firewood.

Alternative C - Same as Alternative B, except that utility volumes are included in the allowable sale quantity calculations.

Alternative Selected and Rationale

Alternative B is selected for implementation for the following reasons:

Minimum size and maximum defect standards determine how much timber a company is required to remove from a timber sale. These standards are used to determine harvest levels for the Region. The optimum practical use of wood material is required under all the alternatives for utilization standards in the Alaska Region. While product utilization normally refers to sawlogs, half of the total wood currently harvested from the Tongass National Forest is manufactured into pulp. Guidelines for harvest scheduling priorities apply to the harvest of both sawlogs and pulpwood.

Alternative A represents the Area Guide policy pertaining to wood utilization; however, it lacks a full definition of the utilization standards currently in use.

Alternative B, the preferred alternative, is intended to promote the best use of timber products. It represents current utilization trends, market conditions, and technological state-of-the-art utilization capabilities. Utilization standards are provided for regenerated stands and old-growth stands of merchantable timber. These will be reviewed periodically. Guidelines for yarding, scheduling, contracting, and utilization of other materials are listed.

Alternative C goes further to include utility log volumes in the allowable sale quantity calculations. Inclusion of utility volumes would increase the annual allowable sale quantity above the 4.5 billion board feet per decade calculated in the Tongass Land Management Plan because volume of utility logs was not included in the original determination of the volume necessary to sustain employment levels.

Transportation and Utility Corridors

Alternative A - (Area Guide Policy, No Action) Transportation corridor planning and development must comply with standards and guidelines of other resource elements. Coordination requirements with Canadian, Federal, State, and other government agencies, communities, private landowners, and affected individuals are listed. Transportation corridor planning would be integrated with Forest planning to the extent appropriate.

* Alternative B - Similar to Alternative A, but, in addition, Alternative B includes policies that require local participation in decisions to build transportation connections between communities and provinces and that utility corridors follow land transportation routes to the extent practicable and appropriate. Utility corridor planning is also integrated with Forest planning to the extent appropriate.

Alternative Selected and Rationale

Alternative B is selected for implementation for the following reasons:

Both Alternatives A and B require the Forest Service to continue to work and coordinate with other Federal, State, and local agencies in transportation planning. Alternative B provides recognition of the social effects of transportation connections between communities by recognizing that the decision on whether to link communities by roads must be made with the maximum amount of participation by those communities and may result in a decision not to link the communities. Thus, these policies may limit the administrative options of an interconnected road system for the Forest Service. Variables that must be addressed include whether a community is to be connected to the system or not, the timing of construction, and the conversion of roads to a State highway status.

The Forest Plan, as the land allocation and scheduling framework of resource activities, will show the major transportation system to be used to access the National Forests. The specific environmental consequences of road construction will be addressed for each route in the site-specific analyses. Forest planning will address an overview of these consequences in dealing with the allocation of lands for transportation corridors.

Utility corridors will usually follow land transportation routes. It is recognized that utility corridors do not have the same siting criteria as roads or railroads. Where environmental and economic considerations favor separate corridors, they may be used. However, to the maximum extent feasible, proliferation of corridors is to be avoided.

The Area Guide policies were developed with extensive involvement of agencies and the public. Alternative B updates this concept to comply with the NFMA regulations and adds emphasis in involving local citizens in transportation planning.

Air Quality

Alternative A - No Area Guide Policy

* Alternative B - (No Action) Continue coordination of smoke management with the Alaska Department of Environmental Coordination. Local sources of emissions will be evaluated to ensure that airshed integrity is maintained.

Alternative Selected and Rationale

Alternative B is selected for implementation for the following reasons:

Air quality on the National Forests is expected to remain much the same as it is currently through the life of this Guide. Localized smoke accumulations from woodstoves, wildfire, and prescribed use of fire are expected. Coordination with the Alaska Department of Environmental Conservation will mitigate short-term effects; no long-term effects are foreseen. With few exceptions, Alaska is classified for prevention of significant deterioration as Class II. This classification applies to all airsheds on National Forests. Increments of air quality are not expected to be exceeded by actions on the

National Forests. Forest Service activities expected to affect air quality will be coordinated with the State of Alaska.

III. MITIGATION MEASURES

All practicable means have been adopted to minimize environmental harm from the alternatives selected in this Record of Decision. However, the actual impacts of implementing the standards and guidelines will be determined in individual Forest Plans.

The Forest planning process incorporates mitigation measures to prevent and/or minimize adverse environmental impacts. The NFMA regulations, Forest Service Directives System, and Forest management direction, as well as requirements specific to each management area within each Forest, will provide a level of protection for all resources that is adequate to mitigate significant adverse environmental impacts. Therefore, none of the standards and guidelines will produce major adverse environmental consequences in and of themselves.

IV. IMPLEMENTATION AND MONITORING

The selected standards and guidelines will not become effective until at least 30 days after the Notice of Availability of the EIS and this Record of Decision appears in the Federal Register.

The monitoring program is described in Chapter 3 of the Regional Guide. Based on intervals established in the monitoring program, implementation will be evaluated to determine how well the standards and guidelines have been applied. The results of monitoring and evaluation will be used to analyze the management situation and the need to amend or revise the Guide.

V. ADMINISTRATIVE REVIEW

This decision is subject to administrative review in accordance with the provisions of 36 CFR 211.18.

December 19, 1983

Date



R. MAX PETERSON
Chief

Chapter 3 AFFECTED ENVIRONMENT

OVERVIEW

This chapter describes the existing environment within the Alaska Region that will be affected by implementation of the proposed standards and guidelines or alternatives. These standards and guidelines relate to National Forest System lands rather than the Region as a whole, guiding the site-specific decisions that are made on the individual National Forests. The first section of this chapter presents a summary of the overall setting of the Region. The next section incorporates by reference (40 CFR 1502.21) the description of the current use and public issues and opportunities associated with the management of the Region's major resources that can be found in Chapter 2 of the Regional Guide.

REGIONAL SETTING

The Alaska Region encompasses the entire State of Alaska, which is approximately 365.5 million acres, 22.7 million acres of which are National Forest System lands. (See Figure 3-1.) The Region is divided into three geographical zones and includes two National Forests, the Chugach and the Tongass. (See Figures 3-2 and 3-3.) The three zones are:

1. Southeast. The entire Alaska panhandle, from Dixon Entrance to Icy Cape, which includes all of the Tongass National Forest (16.9 million acres)
2. Southcentral. That area beginning at Icy Cape and extending to the Alaska Range along the southwestern coast and out the Aleutian Chain; within this area lies the Chugach National Forest (5.8 million acres¹)
3. Interior. The area that is north of the Alaska Range, that is, the remainder of the State

Alaska's major physiographic divisions are the Pacific Mountain and Rocky Mountain Systems, and Intermountain Plateaus (Wahrhaftig, 1956). All National Forest System lands in Alaska lie within the Pacific Mountain

¹Revised following the signing of the 1982 Chugach Natives, Incorporated, Settlement Agreement.

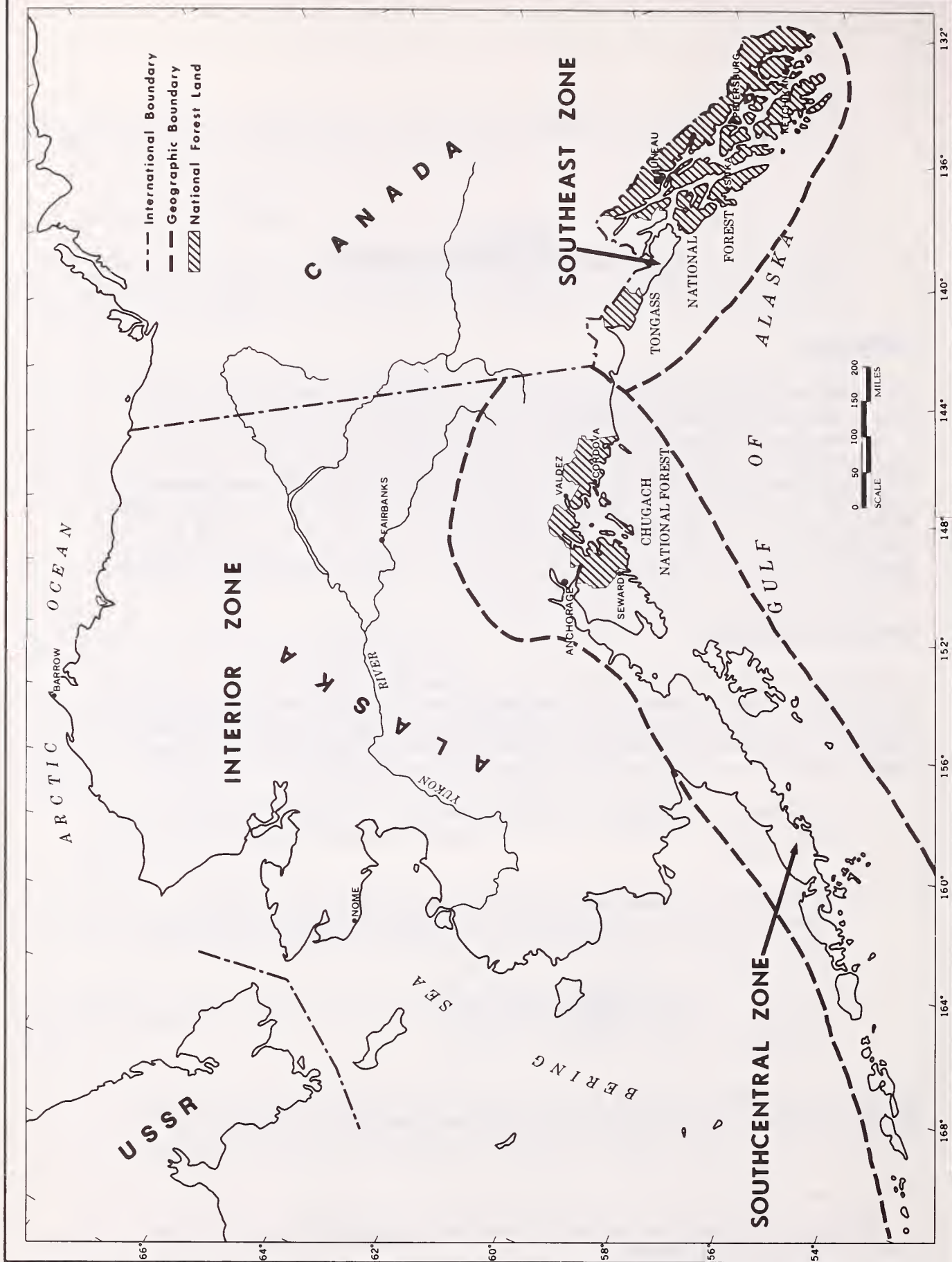


Figure 3-1 The Alaska Region

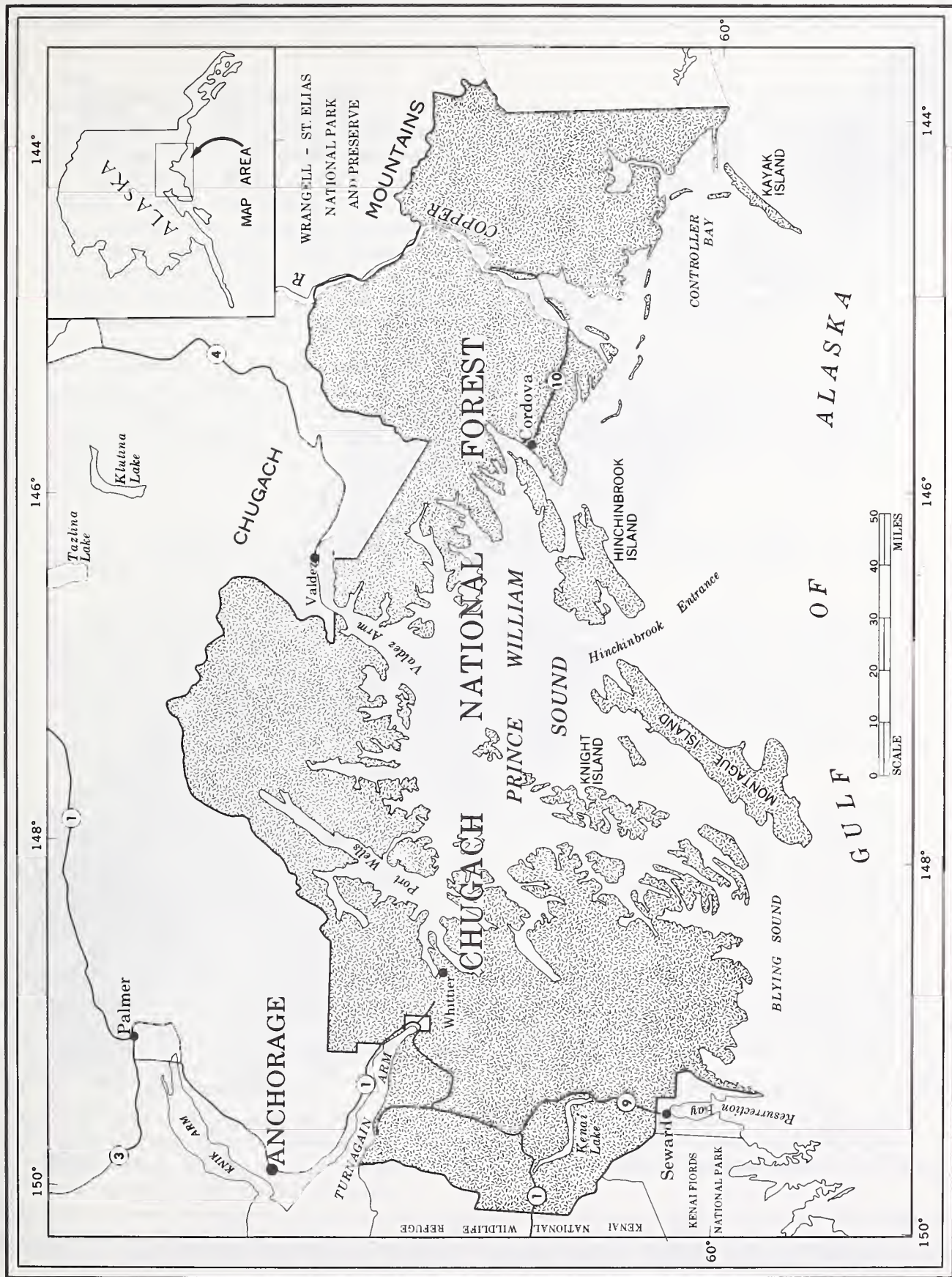


Figure 3-2 The Chugach National Forest



Figure 3-3 The Tongass National Forest

System. This system is an arcuate belt of two parallel mountain ranges separated by intervening lowlands. The northern arc includes the Coast Mountains, and the Alaska and Aleutian Ranges. The southern arc consists of the Kodiak, Chugach-Kenai, Chilkat-Baranof, and Prince of Wales Mountains. These two ranges come together to form the St. Elias Mountains. The intervening lowlands contain the Cook Inlet-Susitna, Copper River, and Kupreanof Lowlands. The Chugach National Forest encompasses the Chugach-Kenai Mountains and portions of the Gulf of Alaska Coastal Section. The Tongass National Forest consists of the Coast, Chilkat-Baranof, and Prince of Wales Mountains and the Kupreanof Lowland.

The landscape of the National Forests in Alaska has been shaped largely by glaciation, resulting in landforms with an abundance of very steep slopes and U-shaped valleys. Unconsolidated soil materials include glacial till, volcanic sediments, alluvium, colluvium, residuum, and organic matter. Fine-textured marine and lake deposits occur on valley bottoms and lower hillsides.

Alaska contains four major climatic zones: Maritime, Transitional, Continental, and Arctic (Searby, 1965). National Forest System lands in Alaska are influenced by all but the Arctic Zone.

In the Maritime Zone, water is the major influence. This zone includes Southeast Alaska and the coastal land and islands in the Gulf of Alaska. This zone exhibits heavy precipitation, cool summers, and warm winters. Annual precipitation ranges from 40 to 220 inches. Twenty percent of the precipitation at lower elevations and nearly 100 percent at higher elevations comes as snow. Temperatures range from the low 20's in winter to the low 70's in summer. Frequent cloudiness and fog are common.

The Transition Zone consists of a band of varying width between the Maritime and Continental Zones. Weather is variable; it may be Continental, Maritime, or a combination of the two. On the average, temperatures are more extreme than in the Maritime Zone, but less extreme than in the Continental Zone. Precipitation amounts in the Transition Zone also fluctuate between the levels in the two zones.

The Continental Zone is inland from the Maritime Zone. Annual precipitation is light, summers are warm, and winters are cold. Annual precipitation ranges from 10 to 80 inches. Fifty percent of the precipitation is in the form of rain. Temperatures range from -30° F in winter to the high 70's in summer.

Vegetative types are determined by climatic and edaphic factors. Common vegetative types include spruce-hemlock, spruce-birch, black spruce, muskeg, alder thickets, cottonsedge and watersedge tundra, Aleutian meadow, and Aleutian and barren heath.

Alaska's vegetative types are related to seven major ecological regions. These regions are the Arctic tundra, Brooks Range, Bering tundra, Yukon parkland, Alaska-Aleutian Range, Coastal trough, and Pacific forest.

RESOURCE ELEMENTS

The environments that will be affected by Forest Service activities are grouped according to elements, some of which represent individual resources. The individual resources are soil, air, and water; fish; wildlife; estuaries and tidal meadows; timber; minerals and geology; recreation and wilderness; and cultural resources. The remaining elements represent types of program support necessary to maintain and facilitate outputs of several or all resources. These support elements are human and community development; transportation; facilities; lands; and pest management. Each resource is discussed in Chapter 2 of the Regional Guide, in terms of current use and a set of assumptions about conditions that will affect future supply and demand for that resource. Chapter 2 of the Regional Guide is incorporated by reference into this Final EIS in accordance with 40 CFR 1502.21.

Chapter 4

ENVIRONMENTAL CONSEQUENCES

OVERVIEW

This chapter describes the potential physical, biological, social, and economic effects of implementing either the proposed standards and guidelines or the alternatives developed for each of the eight resource management categories listed below:

1. Appropriate harvest cutting methods
2. Maximum size of created openings
3. Dispersal and size variation of created openings
4. State of vegetation to be reached before a cutover is no longer considered an opening
5. Management intensity
6. Utilization standards
7. Transportation and utility corridors
8. Air quality

The following discussion of the physical, biological, social, and economic effects is general rather than site specific because the standards and guidelines examined in this EIS are applicable to all National Forest System lands in the Alaska Region. The standards and guidelines do not allocate land uses, nor do they specify actions to be taken on any specific land area of the Region. Rather, they guide the decisions that are made in individual National Forest Land and Resource Management Plans regarding what actions are to be taken concerning a specific area.

The first section of this chapter describes the environmental effects of implementing the alternatives under each of the eight resource management categories of standards and guidelines. Alternative A is the baseline against which the consequences of other alternatives are displayed; it represents current policy in the Southeast Alaska Area Guide. Social and economic effects are also discussed, though more specific economic effects are contained in other documents, such as the Forest Land and Resource Management Plans and the RPA Program Final Environmental Impact Statements.

The second section of this chapter examines the cumulative environmental effects that could result from the implementation of all the sets of standards and guidelines under all the resource management categories taken together as management direction for the individual Forests.

ALTERNATIVE STANDARDS AND GUIDELINES

Appropriate Harvest Cutting Methods

The main--but not the only--treatments that make up silvicultural systems involve the cutting or felling of trees. Cuttings are commonly divided into those that help to reproduce forest stands (regeneration or final harvest cuttings) and those that maintain vigor and desired composition and structure of the stands in terms of tree species, ages, and size classes (intermediate cuttings).

Alternative standards and guidelines have been developed to guide the choice of appropriate harvest cutting methods in the Region. Two basic forms of harvest cutting methods are available: those that result in a forest of even-aged stands and those that result in a forest of uneven-aged stands.

The alternative policies described for appropriate harvest cutting methods on National Forest System lands in Alaska differ in the form of management prescribed (even-aged versus uneven-aged) and in the degree to which the application of various harvest cutting methods under the chosen form of management are made explicit.

Summary of the Alternatives

Those silvicultural policies that were in effect at the time that the Southeast Alaska Area Guide was developed, permitted the use of even-aged management where it was deemed appropriate to meet multiple-use objectives. Area Guide policies displayed in Alternative A specify the process by which clearcutting determinations are made.

Alternative B prescribes even-aged management for all situations, while uneven-aged management would be applied exclusively under Alternative C. In Alternative D (the preferred alternative), even-aged management is prescribed for all timber species, except where uneven-aged management is needed to meet other resource objectives. Alternatives A and D represent no difference in concept or application when the language of Alternative A is supplemented with policies in the Forest Service Manual. However, Alternative A does not prescribe appropriate harvest cutting methods according to geographic areas, forest types, or other suitable classifications as required by the National Forest Management Act (NFMA) regulations.

Environmental Effects

The potential effects of implementing any of the alternatives are reflected as the differential effects of even-aged versus uneven-aged timber management. Appendix D of the EIS, Silvicultural Characteristics of Major Forest

Cover Types, contains a detailed description of the effects of the application of the various timber harvest methods to the major forest cover types. Table 4-1 summarizes the physical, biological, social, and economic effects of the two forms of management.

Comparison of the Alternatives

Even-aged management, allowed under Alternatives A, B, and D, produces stands in which all trees are about the same age (a spread of 10 to 20 years is considered one age class). Regeneration may be obtained through clearcutting, shelterwood cutting, seedtree cutting, or variations of these methods. Uneven-aged management or "selection cutting", as prescribed under Alternative C and allowed under Alternatives A and D, is the practice of making multiple harvest entries into a stand over its rotation period and during each entry removing only a portion of the stand. The amount of the stand removed during any one entry varies. When uneven-aged management is prescribed for all species, it results in a different mix of physical, biological, and economic effects than those that result when even-aged management is prescribed. Two alternative approaches to regeneration are available under uneven-aged management: individual tree selection and group selection.

Clearcutting is by far the most economical and practical cutting method for use where timber production is a major objective of management. The shelterwood and selection methods could become more widely used in situations where the use or protection of other resources is paramount. However, neither of these methods has been applied extensively in coastal Alaska.

Table 4-2 describes the appropriate even-aged and uneven-aged regeneration methods by forest cover type in the Region. Tables 4-3 through 4-5 describe the appropriate harvest (regeneration) methods to achieve the desired forest structural characteristics, to control competing vegetation, and to minimize tree losses from damaging agents.

Table 4-1

Environmental Effects of Even-Aged Versus
Uneven-Aged Management

Factors Considered	Even-Aged	Uneven-Aged ¹
Vegetative Species (Biological Requirements)	Suited for intolerant species. Can also be used for tolerant species.	Suited for tolerant species. Difficult to apply to intolerant species. Difficult to apply where scarification and soil mixing is needed for seedling establishment.
Mechanical Damage from Harvest	Felling and skidding operations may damage residual stand.	Same as even-aged, though potential for damage is higher because of frequent partial cuttings.
Soil and Water	Effective techniques can be used to protect soil and water quality.	Effective techniques can be used to protect soil and water quality.
Snow Interception and Forage Production During Winter Season	Second-growth stands are not effective snow interceptors on Sitka black-tailed deer winter range. Forage availability is normally low or nonexistent.	Large diameter trees with fully developed crowns provide snow interception and allow sufficient light to reach the forest floor to stimulate forage growth.
Growth and Yield	High volume can be grown in all forest cover types.	High volume may be grown in some cover types. Difficult to regulate even-flow harvest. Impossible to obtain significant growth when beginning with overmature stands.
Use of Prescribed Fire (Has not been tested signifi- cantly in coastal Alaska because risk of wildfire related to slash accumulation is low due to the wet climate.)	Could be used.	Very limited practical applications.

¹Has not been studied in coastal Alaska.

Table 4-1 (continued)

Factors Considered	Even-Aged	Uneven-Aged
Use of Genetically Superior Stock (Studies in coastal Alaska are just beginning.)	May be used effectively.	Very limited practical applications.
Recreation	Some recreational objectives can be met.	Recreational objectives can be met. Appropriate in sensitive areas.
Energy Conservation and Economics	Most energy efficient and most economical.	Least energy efficient and least economical.
Wildlife	Best for wildlife species requiring openings or early seral stages. Slash accumulation can be more effectively managed.	Best for wildlife species requiring mature forest conditions.
Diversity	Provides age, size, and species diversity between stands, but not within stands.	Provides diversity within stands.
Visual Quality	Can be used for enhancing the characteristic landscape, but the potential for degradation is higher.	Can be used for retaining current visual conditions.
Windthrow	Most suited to prevent blowdown and suited for salvage operations.	Has higher potential for blowdown and loss of associated deadwood.
Pests and Disease	Most desirable to prevent infection by dwarf mistletoe. Also most desirable in very decadent over-mature stands.	Provides conditions for dwarf mistletoe infection in Western hemlock. Difficult to harvest loss caused by decay fungi in over-mature stands.
Fisheries (Streamside Management)	Most fisheries objectives can be met.	All fisheries objectives can be met. Appropriate in sensitive areas.

Table 4-2

Appropriate Harvest (Regeneration) Methods by Forest Cover Type

Forest Cover Type	Appropriate Harvest Methods	
	Even-Aged	Uneven-Aged
Western Hemlock-Sitka Spruce and Associated Species	Clearcut Shelterwood (not tested in Alaska)	Group Selection and Single-Tree Selection (not tested in Alaska; difficult to initiate in decadent stands)
White Spruce	Clearcut Shelterwood	Group Selection
Black Cottonwood	Clearcut	-
Paper Birch	Clearcut	Group Selection
Aspen	Clearcut	-

Table 4-3

Appropriate Harvest Methods to Achieve Desired Characteristics

Desired Characteristics	Appropriate Harvest Methods ¹	
	Even-Aged	Uneven-Aged
Continuous Site Occupancy With Trees	Shelterwood	Single-Tree Selection
Mosaic of Forest and Openings	Clearcut	Group Selection
Two-Storied Stand	Shelterwood	-
Species Diversity	Shelterwood Clearcut	Group Selection
Multilayered Stands	Shelterwood	Single-Tree Selection
Closed Canopy	Clearcut Shelterwood	Single-Tree Selection

¹Only applicable to certain species, sites, and conditions.

Table 4-4

Appropriate Harvest Methods to Control Competing Vegetation

Competing Vegetation	Appropriate Harvest Methods	
	Even-Aged	Uneven-Aged
Alder	Clearcut Without Severe Ground Disturbance	Single-Tree Selection
Aspen, Birch, Cottonwood	Shelterwood	Single-Tree Selection

Table 4-5

Appropriate Harvest Methods to Minimize Tree Losses From Damaging Agents

Damaging Agent	Appropriate Harvest Methods		Species
	Even-Aged	Uneven-Aged	
Dwarf Mistletoe	Clearcut	If Occurrence Is Isolated, Single-Tree and Group Selection	Western Hemlock
Bark Beetle	Clearcut	Single-Tree and Group Selection	White Spruce
Existing Decay Fungi	Clearcut	-	Hemlock Sitka Spruce
Wind	Clearcut	-	All

Application of a combination of both even-aged and uneven-aged management, as allowed under Alternative D, provides the greatest flexibility in meeting management targets and protecting resource productivity. However, the use of each method will depend on budget levels, timber sale economics, relative target levels of resources, the risk of blowdown or other stand damage, growth loss to the stands, and the degree of resource protection needed. It is anticipated that in a combined system, even-aged management would predominate.

Economic differences between even-aged and uneven-aged timber management result from costs and resource trade-offs associated with these methods. For example, given current technology, the spacing of access roads is closer for uneven-aged management. Also, the extensive harvest acreage that is required to meet annual allowable harvest volumes during the initial phases of uneven-aged management leads to maintaining many more miles of road. Extending the miles of road per unit volume in the short run increases road costs relative to other development costs and results in

a greater dependence on supplemental funding for preroad. Furthermore, uneven-aged management requires the building of almost all roads during the initial entry. This requires substantial additional investments until the road system is completed. The extreme old age and decadence of most existing stands makes conversion of these stands to uneven-aged management difficult or virtually impossible on a large scale.

Even-aged management, on the other hand, provides more flexibility for limiting or increasing the amount of additional roading for future access, primarily because operational efficiencies under this form of management confine more harvest activities to smaller areas. Cost savings under even-aged management can be used to support additional roading for future management.

Mitigation Measures

Design is an important feature in every timber harvest activity. Variables that can be manipulated to achieve specific objectives or to avoid adverse effects on other resources include the size, shape, and arrangement of openings; the locations of roads and support facilities; the logging techniques; and the type of equipment. For example, harvest units can be designed to resemble natural openings or to blend into the existing landscape; while full or partial suspension of logs being removed from the woods may be required to protect watercourses and sensitive soils.

One of the best measures to protect land from the mass wasting that may result from blasting during road construction is to exclude this activity during extremely wet periods. Also, research has shown that watershed erosion and damage to water quality from road construction and timber harvesting can be significantly reduced through proper planning, construction, and follow-up maintenance of roads.

Maximum Size of Created Openings

The NFMA regulations provide for a maximum size opening of 100 acres for the hemlock-Sitka spruce forest type of coastal Alaska where even-aged management is used. The regulations also provide that cut openings larger than those specified may be permitted where larger units will produce a more desirable combination of benefits, and that such exceptions will be provided for in the Regional Guide. Furthermore, the 100-acre limit may be exceeded on an individual timber sale basis after 60-days public notice and review and approval by the Regional Forester. In the event of a natural catastrophic condition, such as a blowdown, fire, or insect or disease attack, the limitation shall not apply.

Summary of the Alternatives

Table 4-6 summarizes the alternatives for limitations on the size of created openings. Alternative A is the existing Regional standard, in which 160 acres is the maximum allowable size, unless exceptions are warranted. This standard exceeds the 100-acre maximum size limit established in the NFMA regulations for the hemlock-Sitka spruce forest type of coastal Alaska.

Table 4-6
Alternatives for Maximum Size of Created Openings

	Alternative A (Area Guide)	Alternative B	Alternative C	Alternative D	Alternative E (Preferred)
Maximum Size of Created Openings	160 acres with exceptions.	100 acres with exceptions.	100 acres with exceptions.	75 acres with exceptions.	100 acres with exceptions.
Exceptions Not Requir- ing Public Notice	Catastrophes are exempt from size limits.	Size can be extended up to 350 acres if specified condi- tions are met; review by Regional Forester is required. Catastrophes are exempt from size limits.	Catastrophes are exempt from size limits.	Catastrophes are exempt from size limits.	Size can be extended by up to 50 percent if specified condi- tions are met, or by up to 100 per- cent to protect adjacent stands from hazard. Catastrophes are exempt from size limits.
Exceptions Requiring Public Notice	Size may be exceeded after appropriate public notice and review by next higher Forest Service official.		Size can be increased on an individual timber sale basis after 60-days public notice if speci- fied conditions are met and the Regional Forester approves.	Size can be increased on an individual timber sale basis after 60-days public notice if speci- fied conditions are met and the Regional Forester approves.	Size can be increased on an individual timber sale basis after 60-days public notice if speci- fied conditions are met and the Regional Forester approves.

Alternatives B, C, D, and E establish the maximum size of openings within a range of 75 to 100 acres. Alternatives B and E provide for exceptions to be made under specified conditions without public notice, as allowed under NFMA regulations.

Physical, Biological, Social, and Economic Effects

When created openings are limited to smaller sizes, as under Alternative D, the proportion of land area occupied by roads and landings increases. Consequently, the risk of disturbance to soil stability and water quality may be higher as the miles of roads increase. The major problem associated with numerous smaller openings across the landscape is the risk of wind-throw along the increasing lengths of edge. Finally, a smaller opening size may decrease logging efficiency by leaving patches that are uneconomical to harvest.

Size is one of the variables governing the use of openings by wildlife. The abundant edge, shorter escape routes, and diversity created by harvesting in numerous smaller patches can increase the distribution and population levels of small bird and mammal species. At the same time, very small openings may result in inadequate ratio between forage areas and cover areas for some species, such as deer.

Larger openings permit the incorporation of groups of diseased trees in the harvest unit, thus reducing the possibility of infection of adjacent stands. However, larger openings may result in inadequate cover for wildlife.

Road construction costs tend to vary inversely with the size of an opening because large openings provide greater harvest volumes with fewer miles of road. Logging and access road costs, as well as timber sale preparation costs (per unit of timber volume harvested), decrease as the size of the openings increases.

The option to exceed the opening size limits is often necessary when reshaping existing rectangular clearcuts to blend with the natural terrain or otherwise meet visual management objectives.

Comparison of the Alternatives

Alternatives B and E state conditions under which a larger opening may be warranted, and they establish secondary size limits. These size exceptions are permitted in the NFMA regulations and are intended to provide flexibility to produce a more desirable combination of benefits. The differences between Alternatives B and E are matters of scale and are not strictly quantifiable. The exceptions to the 100-acre size limits are restricted to individual clearcut harvest units, rather than entire timber sale contracts.

The larger clearcuts allowed as exceptions under both Alternatives B and E might result in one of several benefits, such as better monetary returns to the public by reducing miles of road required per acre harvested in the short run; improved control of dwarf mistletoe infection and, consequently,

improved second-generation wood fiber yield; improved windfirm conditions; enhanced opportunities to establish logical yarding settings consistent with current logging systems technology; and fewer individual harvest units.

On the other hand, there are possibly negative effects of larger clearcuts. The land manager is given greater flexibility under Alternatives B and E to assess the effects of increasing the size of openings and to take action if it is warranted in the specific situation.

The preferred alternative, Alternative E, was developed after public review of the Draft Plan and Draft EIS. It allows for a reasonable amount of flexibility to design openings to respond to specified circumstances within standard operating procedures.

Mitigation Measures

Various mitigation measures, such as buffer and shade strips, are available as means to lessen effects on soil and water quality when large openings are made adjacent to streams.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management

Dispersal of openings is influenced by rotation age, number of management entries per rotation, number of units comprising a feasible sale offering, and number of years of growth required for the stand to no longer be considered a created opening.

Summary of the Alternatives

Alternative A, reflecting the Area Guide policies for dispersal and size variation of created openings, includes provisions for blending and shaping openings with the natural terrain and for reducing damage to wildlife and fish habitat associated with logging operations.

Under Alternative B, the distribution of openings over time would conform to a total compartment multientry plan, and openings would be scheduled, taking into consideration the assumptions and objectives in the implementation of the Forest Land and Resource Management Plan. Characteristics to be identified and delineated in the multientry plan are listed in the standards and guidelines. Factors to be considered in determining the shape and dispersal of created openings on an individual sale basis are also listed.

Environmental Effects

The need for standards and guidelines dealing with the dispersal of openings is related to concerns about visual appearance and effects on water and soil resources. A concentration of cuttings in a short period of time on a small area could result in an increase in erosion and sedimentation.

In addition, the distribution of clearcut areas determines the diversity of forest successional stages and is an important factor in managing wildlife

habitat. Use of forage by big game in the created openings will not occur if adjacent uncut areas are too small or they are at an age that does not provide cover. Alternatives A and B allow for the consideration of all these factors in determining the distribution of openings.

Comparison of the Alternatives

Alternative A, the Area Guide policies, provides the core for the development of Alternative B, the preferred alternative. Alternative B provides a comprehensive description of the considerations to be made for short- and long-term multientry planning. Alternatives A and B both require that cutting units be designed and scheduled to be compatible with the appearance of the natural terrain and to achieve the desired combination of resource objectives. In selecting harvest units for entry under Alternative B, other resource management needs, such as the landscape, visual quality, watershed conditions, and wildlife and fish habitat, must be identified and delineated. Alternative B can be expected to result in a more uniform approach to attaining long-term resource needs than Alternative A by specifying required procedural steps to be taken in multientry planning. Alternative B also provides an integrated approach to scheduling. For example, it provides that uncut blocks of commercial forest land be retained in sizes and shapes that would constitute logical future logging units. In addition, Alternative B requires that harvest units be dispersed in a way that maximizes the effectiveness of the proposed transportation system.

Mitigation Measures

If appropriate mitigation measures are followed, the distribution of openings should not have a significant effect on soil and water resources. The potential for increased siltation can be reduced by not scheduling new cutting areas adjacent to an unforested area and by distributing harvest units over a wide area of forested land.

State of Vegetation To Be Reached Before a Cutover Area Is No Longer Considered an Opening

Conceptually, an opening is no longer considered an opening when the stage of development of the regenerated stand reaches the point where it functions more as a forested area than an open area. From the standpoint of different resources, this could occur at different stages of development of the regenerated stand. The threshold for timber management purposes may occur when it is clear that the regenerated stand has a reasonable expectation of growing to maturity. From a visual management perspective, the turning point might be when the site appears as a young forest rather than as a restocked opening. Conceptually, each management area could have a specific and unique set of standards and guidelines specifying when an area no longer will be considered an opening, depending on the multiple-use management goals or objectives of the area.

Summary of the Alternatives

There are no Area Guide policies relating to the state of vegetation.

Alternative B is a variable alternative. The standard would be selected depending on whether the principal objective to be met concerns visual quality, wildlife habitat, or silviculture. If visual quality is the primary consideration, an opening does not exist when vegetation masks stumps and other logging debris, when the crown closure is 60 percent or greater, or when gradation of contrast is achieved from viewer positions. If wildlife is the primary consideration, then the criteria are that vegetation has reached a height of approximately 10 feet or covers 75 percent of the area, and that the vegetation is evenly distributed. If the objective is silvicultural, Alternative B requires that merchantable tree species, the majority of which exceed 5 feet in height, occur at a stocking level of at least 300 well-distributed trees per acre.

Criteria for visual quality and wildlife habitat given in Alternative B are considered to be satisfactory guidelines to meet stand density and closure objectives for the two resources. The criteria for silviculture are based on current Regional practices as applied to precommercial thinning and planting. Three hundred well-distributed trees per acre represent an average spacing of 12-by-12 feet.

Alternative C, the preferred alternative, allows the reasonable application of Regional silvicultural guidelines, which provide that minimum stocking levels will be based on spacing, distribution, and stand management objectives, rather than on the number of trees per acre. Although the height to be reached will normally be 5 feet, the height and density requirements may be adjusted by the Forest Supervisor to meet specific resource management considerations.

Environmental Effects

The effects of applying and timing timber management practices in accordance with the standards and guidelines are highly variable and dependent upon local site conditions and other factors. They are also dependent upon the measures used to mitigate potential effects.

Effects of the alternatives on the physical environment would tend to be expressed not in the cutover areas, but in the adjacent stands, because the alternatives dictate when they can be harvested. Thus, standards and guidelines for the state of vegetation to be reached before an area is no longer considered an opening actually govern the distribution of adjacent harvest units. Therefore, environmental effects of these alternatives would mirror the effects of the alternatives regulating the dispersal of openings created by even-aged harvest cutting. In general, as the time interval between harvesting areas adjacent to cutover areas decreases, the potential for rapid runoff, soil movement, and sediment levels in water increases. As standards for the state of vegetation in cutover areas become more stringent, the visual contrast between harvested stands and cutover areas becomes less sharp. Standards and guidelines governing the duration that an area will be considered an opening (and thus the timing of harvests in adjacent areas) are essential in ensuring the continuing supply of diverse habitat conditions for wildlife. As dispersal of cutting areas is forced through these requirements, the potential of harassment for wildlife is reduced, even when the state of vegetation requirements focus

on timber management, as in Alternative C. The quality and dispersion of thermal and escape cover provided for wildlife is also contingent on these standards and guidelines.

Comparison of the Alternatives

Alternative B provides a range of opportunities to satisfy visual, wildlife, and silvicultural needs, but is prescriptive beyond the needs that may be encountered on a case-by-case basis. Alternative B, in conjunction with the size limitations on created openings, could prevent the timely harvesting of adjacent blocks of old-growth timber, thereby unnecessarily increasing the costs of stand management.

Alternative C is the preferred standard for defining when cutover areas no longer are considered openings, because it represents a minimum condition to be achieved in response to revegetating an opening. It provides for a minimum height, but leaves to the land manager the determination of stocking adequacy. Alternative C does not preclude the opportunity to satisfy visual, wildlife, or other silvicultural needs that warrant the application of higher standards deemed appropriate through the interdisciplinary process. For example, if the primary objective is to manage for wildlife cover, the desired tree height may be appreciably taller with a greater percent crown cover.

Alternative C may result in better opportunities to achieve a more uniform gradient of regenerated stand heights, thus improving the visual contrast where warranted. It also can be expected to be more economical. The major potentially negative effect of Alternative C is that some could perceive that the guideline might be applied uniformly without consideration of other values.

Management Intensity

There are a number of timber management activities that affect harvest levels, including reforestation, thinning, tree improvement, site preparation, salvage of dead or dying material, and harvest cutting methods. The objective of increasing management intensity is to improve the timber production of the Forest. There have been a limited number of studies on fertilization to date. They do not imply that fertilization will be effective in improving productivity in coastal Alaska.

Summary of the Alternatives

Alternative A includes the Area Guide policies for artificial reforestation, precommercial thinning, genetic improvement, and fertilization. Alternative B, the preferred alternative, augments the Area Guide policies to reflect legislation and the congressional intent of RPA, NFMA, and the Alaska Lands Act for the improved production and protection of the timber supply. This alternative includes guidelines for the selection, scheduling, and implementation of silvicultural practices, including stand examinations.

Physical, Biological, Social, and Economic Effects

Generally, the environmental effects of either alternative would increase as management intensity increases. Some soil displacement could be associated with site preparation, thinning, and harvest practices. Specific effects resulting from management practices and allocations, and the location of such effects, will be identified in individual Forest Plans.

As activity increases, the chances of disturbing fish and wildlife also would increase. More intensive management also would tend to remove more material from the forest, thereby reducing the amount of organic matter remaining. As management activities increase, the quality of recreational experiences could decrease.

More intensive management would provide the opportunity for an increased volume of timber to be grown and harvested. This could provide for a greater number of jobs and an increased personal income. More intensive management activity also would increase costs or budget outlays that are necessary to maintain the work force.

Comparison of the Alternatives

Both Alternatives A and B encourage timber stand improvement practices that enhance multiresource benefits, such as precommercial thinning in winter deer range and reforestation of areas having scenic values. They both stress the use of artificial reforestation and the use of genetic improvements and other methods, when appropriate, to increase wood production. The preferred alternative, Alternative B, increases management intensity in accordance with the Alaska Lands Act to achieve the timber harvest necessary to maintain specified employment levels, while allocating 5.4 million acres of the Tongass National Forest to wilderness use. This alternative provides for the improved production, protection, and utilization of the timber resource. It provides also that stands be examined in the first and third year following treatment.

Utilization Standards

Minimum size and maximum defect standards determine how much timber a company is required to remove for a timber sale. These standards are used to determine harvest levels for the Region. The optimum practical use of wood material is required under all the alternatives for utilization standards in Region 10. While product utilization normally refers to sawlogs, half of the total wood currently harvested from the Tongass National Forest is manufactured into pulp. These sawlog merchantability standards do not apply to pulp. However, guidelines for harvest scheduling priorities apply to the harvest of both cant and pulp wood. For base years 1978 and 1979, an average of 30 percent of the total harvest of spruce and 59 percent of the hemlock was manufactured into pulp, with the balance going to cant production.

Summary of the Alternatives

Alternative A represents the Area Guide Policy pertaining to wood utilization; however, it lacks a full definition of the utilization standards currently in use.

Alternative B, the preferred alternative, is intended to promote the best use of timber products. It represents current utilization trends, market conditions, and technological state-of-the-art utilization capabilities. Utilization standards are provided for regenerated stands and old-growth stands of merchantable timber. These will be reviewed periodically. Guidelines for yarding, scheduling, contracting, and utilization of other material are listed. Alternative C goes further to include utility log volumes in the allowable sale quantity calculations.

Environmental Effects

The principal physical effects of utilization standards are related to how much of the harvested tree is left in the forest after the harvest.

The utilization standards also would affect the availability of organic matter for incorporation into the soil, wildlife habitat, and visual quality. Some deadwood is needed in place to provide habitat for certain wildlife species. This includes dead standing trees for nesting and perching, and dead and down logs for feeding and cover sites. Reduction of slash in clearcut areas benefits movement of wildlife (such as deer) and makes forage more available for use. It also makes the area more accessible for intensive timber management and use by recreationists.

Harvesting costs would be higher when handling small material. The higher the level of timber supply provided by the utilization standards, the more employment opportunities would be enhanced.

Comparison of the Alternatives

Alternative B differs from Alternative A in that it defines sawlog merchantability standards currently used in the Alaska Region. These standards will result in the highest level of fiber removal now possible under current market conditions and industry-wide utilization trends. Alternative B also encourages the yarding of unmerchantable material from sales to improve the utilization of firewood materials where there are transportation links to established communities.

Alternative C differs from Alternative B by including utility volumes in the allowable sale quantity calculations. Inclusion of utility volumes would increase the annual allowable sale quantity above the 450 million board feet calculated in the Tongass Land Management Plan. In establishing the 4.5 billion board feet per decade level, Congress considered that utility log volumes were not included in that level. The volume of utility logs was not included in the original determination of the volume necessary to sustain employment levels.

Mitigation Measures

The Regional supplement to the Forest Service Manual specifies snag retention standards in relation to timber sales. In general, habitat for cavity nesters is decreasing, though it is not considered a problem because there is a great deal of suitable habitat that is not being used.

Transportation and Utility Corridors

Summary of the Alternatives

The Area Guide policy (Alternative A) on transportation and utility corridors has been modified and adopted as proposed policy (Alternative B) for the Regional Guide. The preferred alternative, Alternative B, requires that corridor planning and development comply with standards and guidelines of other resource elements. Coordination requirements with Canadian, Federal, State and other government agencies, communities, private landowners, and affected individuals are listed. Transportation and utility corridor planning would be integrated with Forest Plans to the extent appropriate. Utility corridors would follow land transportation routes to the extent practicable and appropriate.

Physical, Biological, Social, and Economic Effects

Any development within a designated existing utility corridor or transportation corridor, or the designation of a new utility corridor has the potential to adversely affect soil, water quality, fish, wildlife, visual quality, and recreation experiences. Areas that may be affected also are special areas along potential corridor routes, such as critical habitat for threatened and endangered species; congressionally designated wildernesses, national recreation areas, wild and scenic rivers, national trails, and the State counterpart; historical and archaeological artifacts; wildlife rearing and cover areas; and campsites.

The location and management of corridors affect a wide range of people, including residents of the Region, who require transmission of electricity, oil, gas, water, and food; visitors to the National Forests seeking recreation and pleasant scenery; and private landowners along the extension of corridors on National Forest System lands. The economic effects of the location and designation of corridors affect many industries of the Region, including those engaged in manufacturing, transportation, providing utilities, building construction, and shipping overseas.

Comparison of the Alternatives

Alternative B combines policies from the transportation section of the Area Guide (Alternative A) with new material. The Forest Service is not a public road agency. Rather, most of the approximately 200 miles per year of roads constructed by the Forest Service in the Region are built with purchaser credits as a part of the timber sale program of the Region. The Forest Service is limited by the 1964 Forest Roads and Trails Act to require road construction by the timber purchaser only to the standard needed for timber harvest and removal. However, these roads provide access for many other uses, such as hunting, fishing, and picnicking. Where permanent communities are connected, the roads may form the nucleus of a basic transportation system.

Typical 1980 construction costs for a permanent single lane road (14 foot width) with turnouts and bridges were \$180,000 per mile. A similar road without long-term drainage structures (temporary road) costs about \$127,000 per mile.

Both Alternative A and Alternative B, the preferred alternative, require the Forest Service to continue to work and coordinate with other Federal, State, and local agencies in transportation planning. Adoption of the preferred alternative would provide greater recognition of the social effects of transportation connections between communities by recognizing that the decision on whether to link communities by roads must be made with the maximum amount of participation by those communities and may result in a decision not to link the communities. Thus, these policies may limit the administrative option of interconnected road systems for the Forest Service. Variables that must be addressed include whether a community is to be connected to the system or not, the timing of construction, and the conversion of roads to a State highway system status.

The Forest Plan, as the land allocation and scheduling framework of resource activities, will show the major transportation system to be used to access the National Forests. The specific environmental consequences of road construction will be addressed for each route in the site-specific analyses. Forest planning will address an overview of these consequences in dealing with the allocation of lands for transportation corridors.

Utility corridors will usually follow land transportation routes. It is recognized that utility corridors do not have the same siting criteria as roads or railroads. Where environmental and economic consequences of parallel siting favor separate corridors, they may be used. However, to the maximum extent feasible, proliferation of corridors is to be avoided.

Mitigation Measures

Mitigation measures will be developed as part of the involvement of interested or affected individuals and agencies in developing direction concerning road linkages.

Air Quality

The amended Clean Air Act of August 1977 includes three air-quality classes that will be applied to different geographical areas. The Class I, II, and III designations are not standards in themselves. The classes specify the maximum allowable increases in concentrations of sulfur dioxide and particulate matter that are permitted over the baseline concentrations. In no case can the increment exceed the National Ambient Air Quality Standards.

A Class I designation permits only a minor increase above the baseline level. A Class II designation permits moderate amounts of particulates and higher levels of nitrogen and sulfur compounds normally associated with moderate industrial growth. A Class III designation permits higher levels of particulates and other emissions often accompanying industrial operations.

Summary of the Alternatives

There is no Area Guide policy concerning air quality. Alternative B is the only alternative that was developed. It represents current direction and calls for the coordination of smoke management within the Alaska Department

of Environmental Conservation. Local sources of emissions will be evaluated to ensure that airshed integrity is maintained.

Environmental Effects

The environmental effects on air quality on National Forest System lands in Alaska are the result primarily of woodstove burning, and occasionally of wildfire and prescribed fire. The extent of localized effects on wildlife and recreation is unknown.

Air quality on the National Forests is expected to remain much the same as it is currently through the life of this plan. Localized smoke accumulations from woodstoves, wildfire, and prescribed use of fire are expected. Coordination with the Alaska Department of Environmental Conservation will mitigate short-term effects; no long-term effects are foreseen. With few exceptions, Alaska is classified for prevention of significant deterioration (Class II). This classification applies to all airsheds on National Forests. Increments of air quality are not expected to be exceeded by actions on the National Forests. Activities expected to affect air quality will be coordinated with the State of Alaska.

OTHER ENVIRONMENTAL EFFECTS (CUMULATIVE)

Overview

In the preceding sections of this chapter, analysis and discussion focused on potentially significant environmental consequences that would occur with the implementation of alternative standards and guidelines for each of the eight resource management categories. Individual resource management categories were considered separately to facilitate the discussion of environmental effects. Only effects of Regional significance were described, because environmental effects that may occur from applying a set of management directives to a particular land area or effects with significance at the National Forest level will be identified through the Forest planning process.

This section examines the cumulative environmental effects that could result from the implementation of an entire set of standards and guidelines taken together as management direction. To facilitate the discussion of such effects, two sets of standards and guidelines will be compared--the set of preferred alternatives and the no action set. The preferred alternatives for the eight categories of standards and guidelines appear as the proposed actions in the Regional Guide. The no action set consists of current policy as represented in the Southeast Alaska Area Guide.

Only two policy sets will be compared for their cumulative effects, because alternative standards and guidelines that are neither current direction nor the preferred alternative do not follow a theme from one policy category to the next.

The intent of the preferred alternatives (proposed actions) is much the same as the current approach that stresses physical, biological, social, and economic analysis; an interdisciplinary approach; achievement of

multiresource objectives; and involvement of others in the Forest Service planning and decisionmaking process. The proposed actions reiterate the Region's commitment to the policies in the Southeast Alaska Area Guide and the Tongass Land Management Plan. In addition, the preferred alternatives explicitly or implicitly require that assumptions made in setting Forest natural resource targets (such as the timber target) are treated as commitments to be observed in planning and executing projects. This added emphasis on follow-through should have cumulative positive benefits for all resources while making it possible to achieve a greater degree of efficiency in managing wood for production and getting the most for dollars spent.

Mitigation Measures Common to All Alternatives

As stated previously, the standards and guidelines proposed in the Regional Guide are programmatic in nature. The actual effects of implementing the standards and guidelines will be determined in individual Forest Plans. The Forest planning process incorporates many mitigation measures to prevent adverse environmental effects. The NFMA regulations require balanced consideration of all resources to ensure that multiple uses are realized and their yields sustained. The NFMA regulations, Forest Service Directives System, and forest-wide management, as well as requirements specific to each analysis area developed for each Forest Plan provide a minimum level of protection for all resources and mitigate adverse environmental effects. Therefore, none of the standards and guidelines should produce unacceptable environmental consequences.

Prime Farmlands, Wetlands, Floodplains, and Wild and Scenic Rivers

The set of proposed actions (combined with policies retained from the Southeast Alaska Area Guide) provides the greatest flexibility in adapting Forest management activities to the prevailing hydrologic and physiographic conditions. Therefore, the set of proposed actions will help to protect specified wetlands and floodplains.

There are no prime farmlands on National Forest System lands in Alaska. The Situk River is the only river on National Forest System lands that has been identified for study as a potential component of the National Wild and Scenic River System. The EIS and Study Report being prepared by the Forest Service, in cooperation with the State of Alaska, addresses possible adverse effects to the river. Regional standards and guidelines should mitigate potential adverse effects.

Energy Requirements

The proposed actions require a greater degree of planning to achieve efficiency than the no action alternatives. These actions will increase energy conservation by allowing more flexibility in the size of created openings and more preplanning in laying out timber harvest units over several entries.

Unavoidable Adverse Environmental Effects

Implementation of any of the alternative standards and guidelines could result in some adverse environmental effects that cannot be avoided. The degree and severity of the adverse effects will be addressed at the Forest level. Adverse effects can be minimized by adhering to Regional and Forest standards and guidelines. These will be supplemented by specific mitigation measures when project environmental analyses determine the need for additional measures. Effects on Forest resources, such as those described below, will be determined and addressed in Forest Plans and during project planning.

1. **Scenic Values.** Silvicultural and road construction activities cause a temporary change in the landscape that is usually distasteful to the observer. Under both sets of alternatives, there is opportunity to mitigate this effect by allowing for the reshaping of clearcuts to blend with the natural terrain.
2. **Recreation.** Such project activities as timber harvest and road construction occurring under both sets of alternatives temporarily disrupt recreation uses. However, as road systems are developed, some areas will have increased recreation use.
3. **Water Quality and Fisheries Habitat.** Sediment caused by human activity is considered the most significant pollutant in Forest streams. Road construction and harvest activities under both sets of alternatives may increase sediment production.
4. **Air Quality.** Three types of adverse effects that result from the proposed or no action standards and guidelines relating to air quality cannot be avoided. Even operating under available smoke management plans, there are occasionally intrusions of smoke into the designated areas because of local winds, an incorrect weather forecast, or an escaped fire. Second, prescribed burning is allowed under the preferred alternative. Effects would be short-lived and temporary, but in many cases necessary for wildlife habitat management of these areas. And third, an increasing emphasis on residue utilization is manifested in the use of wood for home heating, with potential adverse consequences in some of the airsheds in this Region.
5. **Wildlife Habitat.** Intensive management and other efforts to increase the amount of timber accessible for harvest will change the pattern of high-quality wildlife habitat. In addition, it will make remote areas more available for recreational and hunting uses.

Summary of Irreversible and Irretrievable Commitment of Resources

An "irreversible commitment" of resources results from a decision to use or modify resources that are renewable only over a long period of time, such as soil productivity, or nonrenewable resources such as minerals. All

Forest Plans are based on the principles of multiple use and maintenance of long-term productivity.

An "irretrievable commitment" of resources is the production of renewable resources that is lost because of allocation decisions that forgo the production or use of renewable resources. The truncated successional stage due to short rotation lengths prevents second-growth forests from reaching natural climax conditions. The timber industry states that not harvesting old growth results in wood foregone. Biologists, on the other hand, state that old-growth stands are at a steady state, and, therefore, maintenance of the old-growth condition should not be interpreted as a loss of wood.

Relationship Between Short-Term Uses and Long-Term Productivity

The relationship between short-term uses and long-term productivity is extremely complex and depends upon management objectives and site-specific conditions. In general, the risk of adverse effects on long-term productivity is greater under the no action set of alternatives. The preferred alternative for the dispersal and size variation of created openings stresses multientry layout plans that take into account the long-term effects of the design of harvest units. However, actual decisions affecting the long-term productivity of the land are made at the Forest level. By law, the Forest Plan incorporates the concept of sustained yield of resource outputs, while maintaining the productivity of all resources. Specific direction included in the forest-wide management requirements ensures that long-term productivity will not be hindered by short-term management practices.

Conflicts With Plans of Other Public Agencies

Regional planning has been coordinated with the equivalent and related planning efforts of other Federal agencies; Regional, State and local governments; and Alaska Native groups and Native corporations. Development of the proposed standards and guidelines was a result of this coordination and other public involvement. In addition, the Regional Guide has benefitted from the extensive cooperation that contributed to the Southeast Alaska Area Guide. Conflicts with the plans and policies of the entities mentioned above resulting from the implementation of the proposed standards and guidelines were not identified during the Regional planning process. When specific proposals or projects are to be implemented, established coordination procedures will be followed to address this concern.

SOCIAL AND ECONOMIC EFFECTS (CUMULATIVE)

Based on the last 8 years of employment information, National Forest harvests over the next decade in the Alaska Region will generate approximately 2,750 jobs annually within the timber industry. These jobs, in addition to Forest Service employment, will induce another 2,075 jobs throughout the State's economy. Assuming that the Native corporation harvests average 225 million board measure per year over the decade, as projected for intensive management practices in the Report of the Senate Committee on Energy and Natural Resources accompanying the Alaska Lands

Act, another 520 timber industry jobs and 415 other jobs should be created. Employment-output ratios for Native corporation harvests are lower because of the absence of primary processing regulations requiring the semiprocessing of logs to cants and waneys before export. Without this restriction, the Native corporations are free to export their higher quality logs in the round.

Historically, employment in the logging industry shows greater variability than employment in pulp and sawmilling industries. While mill employment is generally more stable, when employment levels do change, the resulting effects are greater. With an increased statewide timber harvest due to the addition of Native corporation harvests, an overall increase in timber industry employment is anticipated. This increase, however, may not coincide with greater economic stability because of the seasonal nature of logging operations and the relatively remote and self-sufficient characteristics of logging camps. Also, Native corporation harvest levels may be more sensitive to market fluctuations than harvests from public land.

Employment related to fisheries is seasonal. Commercial fishing employment is relatively stable because of the State's limited entry regulations, which restrict the number of commercial fishing permits allowed. Fish processing, on the other hand, is highly variable because of the seasonal nature of the work and because of relatively large changes in the annual commercial catch and market conditions.

Employment related to tourism is growing; though, it is also seasonal. Much of this employment occurs out of State, or briefly within Alaska, as in the case of commercial airlines and cruise ships.

Chapter 5 LIST OF PREPARERS

INTERDISCIPLINARY TEAM

The interdisciplinary team, which is responsible for integrating knowledge of the physical, biological, economic, and social sciences in the Regional planning process, prepared this EIS. Team members were responsible for identifying and analyzing issues, developing options for issue resolution and alternative plans, analyzing the environmental effects, and evaluating planning alternatives. (Further interdisciplinary functions are described in 36 CFR 219.5.)

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Calista Corporation; Anchorage, Alaska
Cape Fox Corporation; Ketchikan, Alaska
Chugach Natives, Inc.; Anchorage, Alaska
Cook Inlet Region, Inc.; Anchorage, Alaska
Goldbelt, Inc.; Juneau, Alaska
Haida Corporation; Hydaburg, Alaska
Huna Totem Corporation; Hoonah, Alaska
Koniag, Inc.; Kodiak, Alaska

Natives of Kodiak, Inc.; Kodiak, Alaska
Sealaska Corporation; Juneau, Alaska
Seldovia Native Association, Inc.; Seldovia, Alaska
Shaan-Sheet, Inc.; Craig, Alaska
Shee Atika, Inc.; Sitka, Alaska
Tatitlek Corporation; Cordova, Alaska
Thirteenth Regional Corporation; Seattle, Washington
Tyonek Native Corporation; Anchorage, Alaska

UNIVERSITIES

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University of Alaska; Fairbanks, Alaska
University of Alaska; Juneau, Alaska
University of Alaska; Alden M. Rollins, Documents Librarian; Anchorage, Alaska
University of Alaska; Institute of Social and Economic Research; Anchorage,
Alaska
University of Alaska, Museum; Anchorage, Alaska
University of Alaska, Wildlife Department; Fairbanks, Alaska
University of Idaho, College of Forestry; Moscow, Idaho

LIBRARIES

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Anchorage Municipal Libraries; Anchorage, Alaska
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Blanche McSmith Public Library; Whittier, Alaska
Cordova Public Library; Cordova, Alaska
Elmer E. Rasmuson Library; Fairbanks, Alaska
Esther Greenewald Public Library; Hoonah, Alaska
Haines Borough Public Library; Haines, Alaska
Juneau Memorial Library; Juneau, Alaska
Kake Community/School Library; Kake, Alaska
Kenai Community Library; Kenai, Alaska
Ketchikan Public Library; Ketchikan, Alaska
Kettleson Memorial Library; Sitka, Alaska
Ministry of Forests, State Library; Kamloops, British Columbia
Noel B. Wien Memorial Library; Fairbanks, Alaska
Petersburg Public Library; Petersburg, Alaska
Seattle Public Library; Seattle, Washington
Seward Community Library; Seward, Alaska
Tenakee Springs Public Library; Tenakee Springs, Alaska
Thorne Bay Community Library; Thorne Bay, Alaska
Valdez Public Library; Valdez, Alaska
Washington State Library; Olympia, Washington
Wrangell Public Library; Wrangell, Alaska
Yakutat City Schools Library; Yakutat, Alaska

ORGANIZATIONS

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Alaska Federation of Natives, Frank R. Ferguson, President; Anchorage, Alaska
Vernon Research Station; Vernon, British Columbia
Indian Tribes of Alaska; Mr. Steve Anderson, Forester; Juneau, Alaska
Environmental Research & Technology, Inc., Valerie J. Randall; Fort Collins, Colorado
United Fishermen and Allied Workers' Union; Vancouver, British Columbia
R. D. Associates, Frank Alguire; Dayton, Ohio
Alaska AFL-CIO; Juneau, Alaska
Alaska State District Council of Laborers; Anchorage, Alaska
Inland Boatmens' Union of the Pacific-Alaska Region; Juneau, Alaska
International Longshoremen's and Warehousemen's Union; Wrangell, Alaska
International Union of Operating Engineers, Local 302; Juneau, Alaska
International Woodworkers; Thorne Bay, Alaska
Laborers International Union of North America, Local No. 942; Juneau, Alaska
Teamster's Union, Local 959; Juneau, Alaska
United Fishermen of Alaska; Juneau, Alaska
United Southeast Alaska Gillnetters; Juneau, Alaska
Associated California Loggers; Sacramento, California
Associated Oregon Industries; Portland, Oregon
Associated Oregon Loggers; Springfield, Oregon
Idaho Forest Industry Council; Coeur D'Alene, Idaho
Industrial Forestry Association; Portland, Oregon
Inland Forest Resource Council; Missoula, Montana
Koncor Forest Research Management; Kodiak, Alaska
Montana Wood Products; Missoula, Montana
North Idaho Forestry Association; Coeur D'Alene, Idaho
Northwest Independent Forest Manufacturers; Tacoma, Washington
Northwest Log Scalers Cooperative; Portland, Oregon
Northwest Pine Association; Spokane, Washington
Northwest Timber Association; Eugene, Oregon
Puget Sound Log Scaling and Grading; Tacoma, Washington
Western Forestry Industrial Association; Portland, Oregon
Western Timber Association; San Francisco, California
Afognak Logging Company; Kodiak, Alaska
Alaska Loggers Association; Ketchikan, Alaska
Alaska Lumber and Pulp Company; Sitka, Alaska
Alaska Pulp America; Wrangell, Alaska
Alaska Timber Corporation; Klawock, Alaska
Bloom Logging Company; Wrangell, Alaska
Campbell Construction and Logging Company; Ketchikan, Alaska
Channel Logging; Ketchikan, Alaska
Clear Creek Logging Company; Kake, Alaska
El Capitan Logging Company; Ketchikan, Alaska
J. R. Gildersleeve Logging Company; Ketchikan, Alaska
Larrabee Logging Company; Juneau, Alaska
Louisiana Pacific Corporation, Ketchikan Division; Ketchikan, Alaska
Louisiana Pacific Corporation, Seward, Alaska
Mitkof Lumber Company; Petersburg, Alaska
Mud Bay Logging Corporation; Sitka, Alaska

Pacific Rim Logging; Tenakee
 Reid Timber, Inc.; Ketchikan, Alaska
 Schnabel Lumber Company; Haines, Alaska
 Seley Construction; Ketchikan, Alaska
 Silver Bay Logging Company; Sitka, Alaska
 Tuxekan Logging; Ketchikan, Alaska
 Tyler Brother, Inc.; Wrangell, Alaska
 R. H. Valentine Logging Company, Inc.; Ketchikan, Alaska
 Murray E. Gildersleeve Logging Company; Ketchikan, Alaska
 Harbour Logging Company; Ketchikan, Alaska
 J & H Logging Company; Petersburg, Alaska
 Kodiak Lumber Mills, Inc.; Anchorage, Alaska
 Atlantic Richfield Corporation; Denver, Colorado
 Alaska Lumber and Pulp Company; Juneau, Alaska
 Alaska Alpine Club; College, Alaska
 Alaska Anthropological Association; Anchorage, Alaska
 Alaska Appraisal Association, Inc.; Ketchikan, Alaska
 Alaska Association for Historical Preservation; Anchorage, Alaska
 Alaska Biological Research; Anchorage, Alaska
 Alaska Center for the Environment; Anchorage, Alaska
 Alaska Chapter, Association of General Contractors; Anchorage, Alaska
 Alaska Coalition; Anchorage, Alaska
 Alaska Conservation Foundation; Fairbanks, Alaska
 Alaska Conservation Society; Ketchikan, Alaska
 Alaska Fisherman's Association; Great Falls, Montana
 Alaska Library, University of California; Santa Cruz, California
 Alaska Miners Association; Anchorage, Alaska
 Alaska Mountain and Wilderness Guide Association; Anchorage, Alaska
 Alaska Natural History Association; Anchorage, Alaska
 Alaska Oil and Gas Association; Anchorage, Alaska
 Alaska Professional Hunters Association, Inc.; Anchorage, Alaska
 The Alaska Railroad; Anchorage, Alaska
 Alaska State Chamber of Commerce; Juneau, Alaska
 Alaska Travel Adventures; Juneau, Alaska
 Alaska Trollers Association; Juneau, Alaska
 Alaska Visitors Association; Anchorage, Alaska
 Alaska Wilderness Sailing Safaris; Whittier, Alaska
 Alaska Women in Timber; Tenakee Springs, Alaska
 American Institute of Fishery Research Biologists; Auke Bay, Alaska
 American Fisheries Society, Alaska Chapter; Juneau, Alaska
 American League of Anglers; Washington, D.C.
 American Mining Congress; Washington, D.C.
 American Motorcyclist Association; Westerville, Ohio
 American Rivers Conservation Council; Washington, D.C.
 American Wilderness Alliance; Denver, Colorado
 Anchorage Convention and Visitors Bureau; Anchorage, Alaska
 Arctic Environmental Information and Data Center; Anchorage, Alaska
 Commercial Fisherman's Cooperative Association; Ketchikan, Alaska
 Cordova District Fisheries; Cordova, Alaska
 Center of Environmental Studies and Outdoor Education; China Poot Bay, Alaska
 Central Council of Tlingit and Haida Indian Tribes of Alaska; Juneau, Alaska
 Cook Inlet Aquaculture Association; Soldotna, Alaska

Exxon Company, USA; Houston, Texas
 Fairbanks Environmental Center; Fairbanks, Alaska
 Far North Ski Guides; Girdwood, Alaska
 Federation of Western Outdoor Clubs; Sitka, Alaska
 Federation of Western Outdoor Clubs; Petersburg, Alaska
 Friends of the Earth; Anchorage, Alaska
 Furthest North Girl Scout Council; Anchorage, Alaska
 Great Lakes Forest Research Center
 Historic Landmarks Preservation Commission; Washington, D.C.
 Izaak Walton League; Washington, D.C.
 Juneau League of Women Voters; Juneau, Alaska
 Metlakatla Indian Community; Metlakatla, Alaska
 Morrison Knudsen Company, Inc.; New York, New York
 Mountaineering Club of America; Anchorage, Alaska
 National Audubon Society, Alaska Regional Office; Anchorage, Alaska
 National Audubon Society, Juneau Chapter; Juneau, Alaska
 National Outdoor Leadership School
 National Wildlife Federation, Alaska Resource Center
 National Wildlife Federation, Resource Conservation Department; Washington, D.C.
 Noranda Explorations, Inc.; Denver, Colorado
 Noranda Mining, Inc.; Juneau, Alaska
 Northern Southeast Regional Aquaculture Association; Sitka, Alaska
 Northland Wood Products; Seattle, Washington
 Northwest Mining Association; Petersburg, Alaska
 Petersburg Conservation Society; Petersburg, Alaska
 Petersburg Indian Association; Petersburg, Alaska
 Petersburg Vessel Owners Association; Petersburg, Alaska
 Prince William Sound Aquaculture Association; Cordova, Alaska
 Resources for the Future; Washington, D.C.
 Sealaska Heritage Foundation; Juneau, Alaska
 Sealaska Timber Corporation; Juneau, Alaska
 Seward Chamber of Commerce; Seward, Alaska
 Sierra Club; Anchorage, Alaska
 Sierra Club, Alaska Chapter; Sitka, Alaska
 Sierra Club, Juneau Group; Juneau, Alaska
 Sierra Club, Legal Defense Fund, Inc.; Juneau, Alaska
 Sitka Conservation Society; Sitka, Alaska
 Society Range Management; Denver, Colorado
 Society of American Foresters; Washington, D.C.
 Southeast Alaska Conservation Council; Juneau, Alaska
 Southeast Alaska Mountaineering Association; Ward Cove, Alaska
 Southern Southeast Regional Aquaculture Association; Ketchikan, Alaska
 Tanana Chiefs Conference, Inc.; Fairbanks, Alaska
 Territorial Sportsmen, Inc.; Juneau, Alaska
 Tongass Historical Society Museum; Ketchikan, Alaska
 Trustees for Alaska; Anchorage, Alaska
 U.S. Borax and Chemical Corporation; Los Angeles, California
 Whittier Historical and Fine Arts Museum; Whittier, Alaska
 Wilderness Research Institute; Haines, Alaska
 Wilderness Society; Juneau, Alaska
 Wilderness Society; Washington, D.C.

Wildlife Management Institute; Portland, Oregon
 Wildlife Management Institute; Washington, D.C.
 Exxon Minerals; Missoula, Montana
 Prince William Sound Inn; Knight Island, Alaska
 Admiralty Citizens Council, Inc.; Angoon, Alaska
 AFL-CIO; Copper Center, Alaska
 Alaska Airlines; Seattle, Washington
 Alaska Bar Association, Natural Resources Section; Anchorage, Alaska
 Alaska Board of Fisheries
 Alaska Board of Game
 Alaska Fisherman News; Juneau, Alaska
 Alaska Forest Products Newsletter; Anchorage, Alaska
 Alaska Independent Fisherman's Marketing Association; Warrenton, Oregon
 Alaska Industry Magazine; Anchorage, Alaska
 Alaska Journal of Commerce; Anchorage, Alaska
 Alaska Longline Fisherman's Association; Sitka, Alaska
 Alaska Lumberman's Association; Ketchikan, Alaska
 Alaska Native Brotherhood; Mt. Edgecumbe, Alaska
 Alaska Native Foundation; Anchorage, Alaska
 Alaska Native Industries; Anchorage, Alaska
 Alaska Office of Commercial Fisheries Development; Anchorage, Alaska
 Alaska Office of Minerals Development; Fairbanks, Alaska
 Alaska Office of Oil and Gas, Conservation Commission; Anchorage, Alaska
 Alaska Power Administration; Juneau, Alaska
 Alaska Research Company; Seward, Alaska
 Alaska Resource Development Council; Anchorage, Alaska
 Alaska Loggers Association; Ketchikan, Alaska
 Alaska Resources Corp.; Anchorage, Alaska
 Alaska Sportmen's Council, Fairbanks, Alaska
 Alaska State Chamber of Commerce, Juneau Headquarters; Juneau, Alaska
 Alaska State Chamber of Commerce; Anchorage, Alaska
 Alaska State District Council; Anchorage, Alaska
 Alaska Timberland Management, Ketchikan, Alaska
 Alaska Village Electric Coop., Inc.; Anchorage, Alaska
 Alaska Vocational Tech Center; Seward, Alaska
 Alaska Consultants; Anchorage, Alaska
 Alaska Magazine; Edmonds, Washington
 Aleutian Electric, Inc.; Kodiak, Alaska
 All-Alaska Weekly; Fairbanks, Alaska
 Alyeska Travel and Rec Club; Valdez, Alaska
 American Copper and Nickel Co. Inc.; Spokane, Washington
 Anaconda Minerals Co.; Anchorage, Alaska
 Aquabionics, Inc.
 ARCO Oil and Gas Co.; Anchorage, Alaska
 Boy Scouts of America; Thorne Bay, Alaska
 Boyer Towing Company; Ketchikan, Alaska
 Campbell Construction and Logging Co.; Ketchikan, Alaska
 Carpenter's Local #1501; Ketchikan, Alaska
 Center for Natural Resource Studies, Berkeley, California
 The Center for Northern Studies; Wolcott, Vermont
 Chevron Resource Co.; Golden, Colorado
 Chignik Boat Owners Assoc.; Juneau, Alaska

Chugach Electric Association, Inc.; Anchorage, Alaska
 Citizen's Advisory Commission on Federal Areas; Fairbanks, Alaska
 Clear Creek Logging Co.; Kake, Alaska
 Commonwealth Forestry Bureau; Oxford, England, UK
 Cook Inlet Fishermen's Fund, Ninilchik, Alaska
 Cook Inlet Historical Society; Anchorage, Alaska
 Cook Inlet Native Assoc.; Anchorage, Alaska
 Copper River Native Assoc.; Copper Center, Alaska
 Delta Paper; Delta Junction, Alaska
 El Capitan Logging Co.; Ketchikan, Alaska
 Evergreen Helicopters, Inc.; Anchorage, Alaska
 Federal Information Center; Anchorage, Alaska
 Forest Planning Magazine; Eugene, Oregon
 The Forestry Forum; West Palm Beach, Florida
 Freshwater Bay School; Juneau, Alaska
 Georgia Pacific Corp.; Portland, Oregon
 Greater Ketchikan Chamber of Commerce; Ketchikan, Alaska
 Alaska Forest/Market Report; Seattle, Washington
 Gulf Mineral Resources Co.; Anchorage, Alaska
 Harbour Logging; Ketchikan, Alaska
 Hi-Lites of Native Business; Anchorage, Alaska
 Industrial Forestry Association
 Idaho Forest Industry Council
 Institute of Alaskan Affairs
 J & H Logging Co.; Petersburg, Alaska
 Jones and Company; Moose Pass, Alaska
 J.D.L. Construction; Anchorage, Alaska
 Kodiak Lumber Mills; Anchorage, Alaska
 League of Women Voters; Juneau, Alaska
 Morris and Sublet, Inc.; Ketchikan, Alaska
 National Assoc. State Foresters; Columbia, South Carolina
 National Forest Products Industry; Washington, D.C.
 National Trails Council; Alexandria, Virginia
 National Geographic Clippings; Washington, D.C.
 North Pacific Fishery Headquarters; Anchorage, Alaska
 Northwest Timber Assoc.; Eugene, Oregon
 Northwest Forest Workers, Assoc.; Eugene, Oregon
 Northern Southeast Regional Aquaculture, Association; Sitka, Alaska
 Southeast Alaska Seine Boat Owners and Operators Assoc.; Ketchikan, Alaska
 Southcentral Timber Development, Inc.; Anchorage, Alaska
 The Forest Service Monitor; Larkspur, California
 The Wildlife Society; Bethesda, Maryland
 United Cook Inlet Association; Kenai, Alaska
 United Southeast Alaska Gillnetters; Juneau, Alaska
 Wildlife Society; Washington, D.C.
 Wildlife Society, Alaska Chapter; Juneau, Alaska

INDIVIDUALS

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 Michael Frank; Anchorage, Alaska
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 Jack Allen; Anchorage, Alaska
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 Max M. Lewis; Juneau, Alaska
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Conner Sorensen; Juneau, Alaska

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Karen McCullough; Petersburg, Alaska
J. E. Hall; Anchorage, Alaska
Marylyn Conley; Ketchikan, Alaska
Judy Macnak; Auke Bay, Alaska
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Therese Armetta; Kodiak, Alaska
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Gerald Garland; Juneau, Alaska
Helen Hooper; Sitka, Alaska
Cathy Luenin; Sitka, Alaska
Gregory P. Streveler; Gustavus, Alaska
Cooperrider and Giefer; Funter Bay, Alaska
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Cheryl A. Easterwood; Sitka, Alaska
Corinne Dillar Ryan; Ross, California
Frank Bailey; Coeur D'Alene, Idaho
Rudy Branlund; Sitka, Alaska
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Dorothy L. Buresh; Port Angeles, Washington
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Dave Crosby; Clinton, Connecticut
E. Allan Crozier; Toms River, New Jersey
Kenneth Daniels; Ogden, Utah
George Canner, Jr.; Juneau, Alaska
Oklahoma Duffle; Sitka, Alaska
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B. R. Glass; Juneau, Alaska
Arthur W. Greeley; Bethesda, Maryland
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William D. Hurst, Society for Range Management; Bosque Farms, New Mexico
W. Howard Johnson; Bainbridge Island, Washington
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Hugh W. Olmstead; Claypool, Arizona
Vince Olson; Grants Pass, Oregon
B. H. Payne; Venice, Florida
Frank E. Price; Friday Harbor, Washington
Theodore A. Schlapfer; Cornelius, Oregon
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C. A. Yates; Novato, California
Maradel Gale; Eugene, Oregon
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Beverly K. Joslin; Ketchum, Idaho
Ray Bartoo; Juneau, Alaska
Robin Hill; Bellevue, Washington
Pete Zwaneveld; Safford, Arizona
R. D. Associates, Frank Alguire; Dayton, Ohio
K. Throop; Masco, Idaho
Jennifer Browning; Sterling, Alaska
Edward Schultheis, Jr.; Marrero, Louisiana
William Adams; Juneau, Alaska
Bob Jones; Juneau, Alaska

OTHERS

Newspapers, community colleges, radio stations, TV stations in Southeast and Southcentral Alaska
Canadian Ministry of Forests, Western Provinces

Appendix A

GLOSSARY

A

208 Planning. The section of the Clean Water Act, amended in 1977, that directs development and implementation of areawide waste treatment management plans.

Alaska Lands Act. Formally known as the Alaska National Interest Lands Conservation Act (ANILCA) of 1980.

ANCSA. Alaska Native Claims Settlement Act of 1971.

ASA. Alaska Statehood Act of 1959.

Account. Term used in the Southeast Alaska Area Guide for organizing discussion of management direction under topic headings. Resource accounts comprise soil, water, fish, wildlife, estuaries and wetlands, minerals and fossil fuels, recreation, wilderness, and cultural resources. Administrative and support accounts comprise transportation, landownership and occupancy, forest insect and disease management and pesticide use, and public safety and protection.

Aerial Harvest Systems. Examples are helicopter and balloon logging.

Age Class Diversity. The amount of age class distribution within a stand. Stands with low age class diversity would be composed of trees approximately the same age. Stands with high age class diversity would contain trees of many ages.

Air-Quality Increments. The maximum allowable increases in pollutant concentrations as defined in section 163 of the Clean Air Act.

Airshed. A geographical area that, because of topography, meteorology, and climate, shares the same air.

Alaska Native. Any citizen of the United States who is a person of one-fourth degree or more Alaska Indian, Eskimo, or Aleut blood, or combination thereof. The term includes a Native as so defined either or both of whose adoptive parents are Natives. It also includes, in the absence of proof a minimum blood quantum, any citizen of the U.S. who is regarded as an Alaska Native by the Native village or Native group of which he claims to be a member and whose father or mother is (or, if deceased, was) regarded as Native by any village or group.

Alevins. Salmonid embryos in the streambed gravel with the yolk sac attached (prior to emergence from the gravel).

Allowable Sale Quantity. The quantity of timber that may be sold from the area of suitable land covered by the forest plan for a time period specified by the plan. This quantity is usually expressed on an annual basis as the "average annual allowable sale quantity."

Amenity Output/Use. An object, feature, quality, or experience that gives pleasure or is pleasing to the mind or senses. Examples are sport fish and wildlife use and dispersed recreation.

Anadromous Fish. Those species of fish that mature in the sea and migrate into streams to spawn and rear. Salmon and steelhead are examples.

Aquaculture. As used in this Guide, aquaculture encompasses various methods of propagating aquatic salmonids and includes hatcheries, incubation boxes, and spawning channels. (See also "Fisheries Enhancement and Rehabilitation Activities.")

B

Best Management Practice (BMP). Best management practices are those methods, measures, or practices to prevent or reduce water pollution and include but are not limited to structural and nonstructural controls, and operation and maintenance procedures. BMP's are not a site-specific prescription or plan in themselves; they are a group of general guidelines which, when used in conjunction with the interdisciplinary team process, are expected to provide adequate protection to meet water-quality standards and goals.

Biological Growth Potential. The average net growth attainable in a fully stocked natural forest stand.

Buffer Strips. See "Streamside Strips."

C

CEQ. Council on Environmental Quality.

CFL. Commercial Forest Land (See definition.)

Cant. A product to be subsequently remanufactured, produced from a log sawn throughout its entire length on at least two sides. Cant shall not exceed an average 8 inches in thickness. Due to variation in sawing, individual cants may measure as much as 8-3/4 inches.

Capability. The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Chip. A small piece of wood used to make pulp. The chips are made either from wood waste in a sawmill or plywood operation or from pulpwood specifically cut for this purpose. Chips are larger and coarser than sawdust.

Chugach National Forest. One of two National Forests in Alaska; the Chugach National Forest is located in Southcentral Alaska with headquarters in Anchorage.

Chugach Natives, Incorporated. One of 13 Regional corporations authorized by the Alaska Native Claims Settlement Act to manage certain rights and assets of the Alaska Native stockholders. All but one Regional corporation is associated with a specific geographic region of the State.

Clearcutting. The removal, in a single cut, of all trees larger than saplings in the stand. Natural or artificial regeneration may be established before or after cutting. Areas clearcut may occur in blocks, patches, or strips.

Climax Forest. A plant community that represents for its locality and its environment the culminating stage of a natural succession. When the culminating stage is influenced by topography, it is termed a topographic climax and when maintained by regular fires, it is termed a fire climax.

Climax Ecosystem. The final or stable biological community in a developmental series. Self-perpetuating and in balance with the physical habitat.

Commercial Forest Land (CFL). See "Timber Classification."

Commercial Thinning. Thinning is an intermediate step in even-aged management. It is a cutting made in an immature stand primarily in order to accelerate diameter increment but also, by suitable selection, to improve the average form of the trees that remain without permanently breaking the canopy. It also can be used to increase herb and shrub production for some species of wildlife. Commercial thinning produces merchantable material at least to the value of the direct costs of harvesting.

Commodity Output. A good or service that is normally bought and sold in a market after at least one stage of production before final consumption. Examples are timber, developed recreation, and water.

Compartment. A unit of forest area delineated for purposes of orientation, administration, and silvicultural operations. It is usually identified on the ground by physical boundaries. A compartment consists of a collection of contiguous stands of timber and other vegetation. It is used for sampling vegetation types, characterizing its condition and other features, and is a file unit for storage and retrieval of timber and other multiple-use data. The perimeter boundary of a compartment should be regarded as being permanent.

Conservation System Unit. As defined by the Alaska Lands Act, any unit in Alaska of the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, or a National Forest Monument including existing units.

Corridor. A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries. (See also "Wildlife Corridor.")

Created Opening. Openings in the forest created as the result of even-aged harvest cutting methods through clearcutting, group selection, or shelterwood regeneration systems.

Critical Landscapes. Landscapes that are vulnerable to some form of degradation resulting from natural processes or management actions. Examples are very steep slopes, alluvial fans, and floodplains that are vulnerable to erosion.

Crown Closure. The amount of cover provided by tree crowns over a given area, expressed in percent.

Culmination of Mean Annual Increment (CMAI). The stand age at which mean annual increment culminated; mean annual increment is the total increment up to a given age, divided by that age. Culmination is that point on two curves where current annual increment and mean annual increment cross. This is usually slightly past the point at which mean annual increment appears to drop off.

Cultural Resources. Any evidence of mankind's activities and behavior; includes data from archaeology, architecture, ethnology, and history.

D

Developed Recreation. Outdoor recreation requiring significant capital investment in facilities to handle a concentration of visitors on a relatively small area. Examples are ski areas, resorts, and campgrounds.

d.i.b.. Diameter inside bark; a timber measurement.

Dispersed Recreation. A general term referring to recreation use outside a developed recreation site; this includes activities such as scenic driving, hunting, backpacking, and recreation in primitive environments.

Diversity. The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. (See also "Edge," "Horizontal Diversity," and "Vertical Diversity.")

E

Economically Viable. A project, program, or other activity that meets or exceeds a desirable rate of return or benefit/cost ratio.

Edge. Where plant communities meet or where successional stages or vegetative conditions within plant communities come together.

Element. Term used in Regional Guide to replace the word "account" to organize standards and guidelines.

Endangered Species. Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species are identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

End Haul. In roadwork, removing excess excavated soil lengthwise along the road instead of casting the soil to the side.

Estuarine Management Unit (EMU). That unit of land and water designated through the interdisciplinary process to receive special management consideration for wildlife, waterfowl, and fish habitat protection.

Estuary. All or part of the mouth of a river or stream or other body of water having unimpaired natural connection with the open saltwater and within which the sea water is measurably diluted with freshwater derived from land runoff. Commonly such areas are considered to include the adjacent grass or mud flats present below mean higher high tide.

Even-Aged Management. The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

F

Fisheries Enhancement and Rehabilitation Activities. Fishways, fish weirs, fish ladders, fish hatcheries, spawning channels, stream clearance, and egg planting.

Fish Habitat Management Unit (FHMU). An area of stream and associated streamside habitat identified during the interdisciplinary process as having values important to fish habitat such that timber management practices and other land-use activities will be prescribed to meet fish management goals. (See also "Estuarine Management Unit.")

Fish and Wildlife Habitat Capability. The capability of an area to produce various amounts of wildlife and fish. (See also "Capability.")

Floodplain. The lowland and relatively flat areas joining inland and coastal waters, including debris cones and floodprone areas of offshore

islands, including at a minimum, that area subject to a 1-percent (100-year recurrence) or greater chance of flooding in any given year.

Forage. All browse and nonwoody plants available to livestock or wildlife for grazing or harvested for feed.

Forest Fertilization. The addition to forest soils of mineral or organic fertilizers to increase soil nutrients needed for tree and other plant growth.

Forest Highway Program. This program, authorized under the Surface Transportation Act of 1978, is intended to provide a source of Federal funding for the construction or improvement of public roads that serve National Forest resources and local communities. Highways constructed or improved under this program must be under the jurisdiction of a public road authority; usually the State or county. They are often included as a part of the State Highway System. The program is administered by the Federal Highway Administration with the cooperation of the Forest Service and the State.

FORPLAN. An analytical modeling procedure featuring a linear programming schedule model that is used in the Forest planning process to assist managers in allocating resources and scheduling resource activities for a geographically defined area.

G

Group Selection. The cutting method that describes the silvicultural system in which trees are removed periodically in small groups resulting in openings that do not exceed an acre or two in size. This leads to the formation of an uneven-aged stand in the form of a mosaic of age-class groups in the same forest.

Guideline. See "Standards and Guidelines."

H

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Harvest Cutting. The felling of the final crop of trees either in a single cutting or in a series of regeneration cuttings. Generally, the removal of financially or physically mature trees, in contrast to cuttings that remove immature trees. Also referred to as main felling and major harvest.

High Lead Cable Logging. A method of logging in which the logs are yarded from the cutting area to the landing using a cable system that lifts the logs partially off the ground to avoid obstructions.

I

Individual (Single) Tree Selection. The cutting method that describes the silvicultural system in which trees are removed individually, here

and there, each year over an entire forest or stand. The resultant stand usually regenerates naturally and becomes all-aged.

Inoperable Timber. Timber that cannot be harvested by any proven method because of potential resource damage, extremely adverse economic considerations, or physical limitations.

Integrated Pest Management. A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resources values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

Interdisciplinary Team (IDT). A group of individuals representing different areas of knowledge and skills focusing on the same task, problem or subject.

K

Key Habitat Areas. Areas that provide the best combination of habitat elements to meet the food, reproduction, shelter, and space requirements for wildlife and fish during all or part of the yearly life cycle.

L

Log Storage Areas. These areas are usually understood as being water storage locations where bundles of logs are sorted, collected, and boomed into rafts. Some areas are used exclusively for the storage of rafts of logs pending delivery to mill locations.

Log Transfer Site (LTS). Synonyms include "Log Transfer Facility" (LTF), and the obsolete term "Log Dump." These terms refer exclusively to the industrial site and facilities (structure) used for moving logs and timber products from land-based transportation forms to water-based transportation forms. It is inappropriate to use these terms for access sites to the National Forests (Terminal Transportation Facilities). LTS designations are not to be used except in reference to the actual location or structure where the logs are physically placed in the water or on vessels.

Logging Debris. Usually woody debris of various sizes that are generated through timber harvest practices.

Long-Term Sustained-Yield Timber Capacity. The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified management intensity consistent with multiple-use objectives.

M

MARS. Management Attainment Reporting System, wherein those targets attained by management--that is, volume of timber cut--are reported by the Forests.

MMBM. One million board measure.

MUSYC. Multiple-Use Sustained-Yield Concept, a linear programming computer model designed to schedule wildland multiple-use resource outputs.

Management Area. An area with similar management objectives and a common management prescription.

Management Concern. An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

Management Prescriptions. Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Mean Annual Increment (MAI). The total increment of volume growth per acre up to a given stand age, divided by that age. Culmination of mean annual increment is the stand age where the mean annual increment of growth is greatest or reaches its highest point.

Merchantable Log. A sawlog that is not less than 12 feet long, is at least 6 inches in diameter inside bark at the small end, and, after deductions for defect, contains a net scale of at least 33-1/3 percent of its gross scale; or a spruce or hemlock utility log that is at least 12 feet long, is at least 6 inches in diameter inside bark at the small end, and which will produce not less than 50 percent of its gross volume in firm, usable pulp chips.

Mining. Includes all operations for the extraction of mineral resources--underground and open pit mines, rock and sand and gravel borrow, and the like.

Monitoring. Following a course of events to determine what changes occur as the result of an action.

Multientry Layout Plan. The size, pattern, and distribution of multiresource characteristics of an entire timber compartment programmed for at least one rotation. For further discussion, see Regional standards and guidelines for dispersal and size variation of tree openings created by even-aged management.

Multiple Entry. Entering an area more than once during a given rotation period for the purpose of harvesting timber.

Multiple Use. The management of all the various renewable surface resources of the National Forest System so that they are utilized in the

combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

N

Native Corporation. See "Regional Corporation" and "Village Corporation."

Native Group. Any tribe, band, clan, village, community, or village association of Natives in Alaska composed of less than 25 Natives who comprise a majority of the residents of the locality.

Native Village. Any tribe, band, clan, group, village, community, or association in Alaska listed in sections 11 and 16 of ANCSA, or which meets the requirements of ANCSA, composed of 25 or more Natives.

NEPA. National Environmental Policy Act of 1969.

NFMA. National Forest Management Act of 1976.

Nonconsumptive Use. Activities during which the objects of the activity are observed but not consumed. Examples would be visual quality, wildlife viewing, and wilderness use.

Nondeficit Sale. A timber sale offering that, under current rules of appraising timber, displays a residual value for stumpage at or above base prices, taking into consideration expected development costs, margin for profit, and risk for the operator.

Nonforest Lands. See "Timber Classification."

Nonpoint Source Pollution. Pollutants arriving from an areawide, nondiscernable source, usually diffuse in nature and resulting from naturally occurring events such as precipitation, seepage, runoff reacting with man's activities.

Nonstandard Harvest Operability. Timber that cannot be harvested with standard equipment and techniques but would require other systems including balloon, helicopter, and skyline over 2,600 feet in length.

Normal Harvest Operability. Timber that can be harvested with standard equipment and predominant techniques now in use. These include highlead, A-frame, skyline less than 2,600 feet, and tractor.

Old-Growth Sawtimber. Commercial forest stands more than 10 percent stocked where the plurality of stocking is in sawtimber trees (11 inches or larger in diameter) more than 150 years old.

Old-Growth Stand. A stand that is past full maturity and showing signs of decadence, the last stage in forest succession. The definition of old growth by tree age, size, height, or density will vary by timber type. Among the components of old growth that may be of importance to wildlife species and that may be affected by land management practices are large trees, old trees, decadence of standing vegetation, much dead and down woody material, uneven-aged vegetation, multilayered vegetation, moderate foliar height diversity, and mesic microhabitats afforded by high canopy closure. High canopy closure does not always correspond to decadence.

Optimum Method of Harvest. A professional judgment for the cutting methods used to harvest an existing stand and regenerate a new one, (that is clearcutting, shelterwood cutting, seed-tree cutting, and their many variations, for even-aged harvest cutting methods; single tree or group selection and other forms of partial cutting for uneven-aged harvest cutting methods). The optimum method is primarily determined by an analysis of the silvicultural characteristics of the species involved, management objectives of the area, and economics.

Output. A good, service, or onsite use produced from forest and rangeland resources.

P

Particulates. Small particles suspended in the air and generally considered pollutants.

Partial Cutting. All methods of tree removal that result in taking only part of a stand.

Pesticide. Anything intended to destroy or repel pests, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Pests. Plants and animals in specific situations where the land manager determines they are detrimental to achieving resource management objectives.

Planning Horizon. The overall time period considered in the planning process that spans all activities covered in the analysis or plan and all future conditions and effects of proposed actions which would influence the planning decisions. The current planning horizon covers the years 1980 to 2030.

Planning Period. One decade. The time interval within the planning horizon that is used to show incremental changes in yields, costs, effects, and benefits.

Potential Yield. The potential yield for the next 10 years is the maximum harvest that could be planned to achieve the optimum perpetual sustained yield harvesting level attainable with intensive forestry on regulated areas, considering the productivity of the land, conventional logging technology, standard cultural treatments, and interrelationships with other resource uses and the environment.

Pre-Roading. Advanced road construction to facilitate development of future timber sales, or for other resource management purposes, usually done under public works contract. Development costs, in the case of subsequent timber sales, are recaptured in receipts to the treasury because of higher stumpage prices paid as a consequence of lower development costs.

Precommercial Thinning. A type of tree thinning that particularly favors the dominant or selected dominants more or less evenly distributed over the stand by removing a varying proportion of the other trees.

Prescribed Burning. A fire burning under specified conditions that will accomplish planned objectives in strict compliance with an approved plan. While ignition may be either planned or unplanned, the conditions under which the burning takes place and the expected results are specific, predictable, and measurable.

Prescriptive Plan. A detailed plan made for a land management action such as a timber sale. Includes imposed restrictions for streamside strips, location of roads, etc.

Public Issue. A subject or question of widespread public interest relating to management of the National Forest System.

Pulp or Wood Pulp. Wood fibers separated by mechanical or chemical means for use in manufacturing paper, textiles, and many other products derived from cellulose.

Pulpwood. The softwood of spruce, pine, aspen, and various other trees used to make paper.

R

RAM. Resource Allocation Model--a computer program designed to provide an analytical framework for scheduling long-range resource outputs.

RPA. Forest and Rangeland Renewable Resources Planning Act of 1974. Calls for a periodic assessment of the renewable resources of the Nation.

Recreation Opportunity. The availability of a real choice for recreationists to participate in a preferred activity within a preferred setting, in order to realize those satisfying recreation experiences that are desired.

Recreation Opportunity Guide (ROG). A system that inventories National Forest recreation opportunities and presents the resulting information to the public.

Recreation Opportunity Spectrum (ROS). The framework for planning and managing the recreation resource within which lands are identified for their ability to provide recreation experiences in one of the six classes along a continuum from primitive to modern-urban. Each class is defined in terms of the degree to which it satisfies certain recreation needs based on area size, the extent to which the natural environment has been modified, the type of facilities developed, and the degree of outdoor skills needed to enjoy the area. The six classes are primitive, representing the most remote, undeveloped, and inaccessible opportunities; semiprimitive nonmotorized; semiprimitive motorized; roaded natural; rural; and modern-urban, representing the most developed, accessible, and convenience-oriented experience available.

1. Primitive ROS Class--Generally includes those areas out of sight and sound of human activities and further than 3 miles from roads open to public travel. The areas are larger than 5,000 acres in size with opportunities for a high degree of interaction with the natural environment, challenge, risk, and the use of outdoor skills. Because of their remoteness, users of these areas are normally required to stay overnight.
2. Semiprimitive Nonmotorized ROS Class--Generally includes those areas greater than one-half mile and less than 3 miles from roads and trails open to motorized use. The areas are generally larger than 2,500 acres in size with limited opportunities for isolation from the sights and sounds of humans and a high degree of interaction with the natural environment. Moderate challenge, risk, and the opportunity to use outdoor skills are factors in this environment.
3. Semiprimitive Motorized ROS Class--Includes areas less than one-half mile from primitive roads and trails open to motorized use. Areas are generally larger than 2,500 acres in size and are characterized by a predominantly unmodified natural environment with minimum evidence of sights and sounds of humans. Concentration of users is normally low. Road access is not maintained in these areas.
4. Roaded Natural ROS Class--Include areas less than one-half mile from roads open to public travel, railroads, major power lines and within resource modification areas. Areas in this class generally vary in size from 100 to 2,000 acres and are characterized by predominantly natural environments, with moderate evidence of sights and sounds of humans. Concentration of users is moderate to low.
5. Rural ROS Class--Includes those areas within small communities, developed campgrounds, developed ski areas, and administrative sites. The areas are generally smaller than 500 acres in size and are characterized by substantially modified natural environments. Modifications are primarily to enhance specific recreation activities. Sights and sounds of humans are readily evident. Concentration of users is moderate to high.

6. Modern-Urban ROS Class--Areas of varying sizes characterized by substantially urbanized environment. The background may have elements of a natural environment. Renewable resource modification and utilization practices are common. Vegetative cover is often exotic and manicured. Sights and sounds of humans predominate. Large numbers of visitors can be expected both onsite and in nearby areas.

Recreation Visitor Days (RVD's). Twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Regional Corporation. An Alaska Native Regional Corporation established under the laws of the State of Alaska in accordance with the provisions of ANCSA. Regional corporations are established to conduct business for profit.

Regulated Harvest. The regulated harvest includes any volume included in calculations of the allowable sale quantity, which is harvested from suitable commercial forest land. Regulated harvests are therefore those calculated to systematize the production of forest products under principles of sustained yield on an annual or periodic basis.

Release. Freeing a tree or group of trees from competition by cutting or otherwise eliminating growth that is overtopping or closely surrounding it (them).

Reserved Forest Land. Productive forest land withdrawn from cutting by statute, administrative regulation, or by designation into land use approved by the Regional Forester.

Retention Factor. The amount of commercial forest land removed from the operable commercial timber base to protect other resource values. These factors are allowances available to draw upon when meeting other resource needs.

Riparian Ecosystems. A transitional system occurring between an aquatic ecosystem and the adjacent terrestrial ecosystem, identified by soil characteristics and distinctive vegetation communities that require free or unbound water.

Roadless Area Review and Evaluation (RARE II). A comprehensive process directed by the Secretary of Agriculture to identify roadless and undeveloped land areas in the National Forest System and to determine their uses for either wilderness or other resource management and development and to determine areas that would require further planning to make such a decision.

Rotation. The planned number of years (approximately 100 years in Alaska) between the formation of a regenerated stand and its final cutting at a specified stage of maturity.

Salmonids. In this report, includes the five species of Pacific salmon and cutthroat, rainbow and steelhead trout, Dolly Varden, lake trout, char, and grayling.

Salvage Cutting. The utilization of trees that are dead, dying, or deteriorating because they are overmature or have been materially damaged by fire, wind, insects, fungi, or other injurious agents before their timber becomes worthless.

Sawlog. A log considered suitable in size and quality for producing sawn timber. Usually No. 3 or better, 12 feet long, 6 inches diameter, and 1/3 sound.

Sedimentation. The geologic processes involved in separation of particles from the parent rock, the methods of transportation from the source of origin to those of deposition, and the methods, agents, and environment(s) of deposition.

Seed-Tree Cutting. The cutting method that describes the silvicultural system in which the dominant feature is the removal of all trees in one cut except for a small number of seed bearers left singly or in small groups, usually 8 to 10 per acre (20 to 25 per hectare). The seed trees generally are harvested when regeneration is established. An even-aged stand results.

Sensitive Species. Those species that have appeared in the Federal Register as proposals for classification and are under consideration for official listing as endangered or threatened species, are on an official State list, or are recognized by the Regional Forester to need special management in order to prevent the need for their placement on Federal or State lists of threatened or endangered species.

Shelterwood. The cutting method that describes the silvicultural system in which, in order to provide a source of seed and/or protection for regeneration, the old crop (the shelterwood) is removed in two or more successive shelterwood cuttings. The first cutting is ordinarily the seed-tree cutting, though it may be preceded by a preparatory cutting, and the last is the final cutting. Any intervening cutting is termed "removal cutting." An even-aged stand results.

Shelterwood Cutting. The removal of a stand in a series of two or more cuts over a period of not more than 20 years. Regeneration of the new stand occurs under the cover of a partial forest canopy. A final harvest cut removes the shelterwood and permits the new stand to develop in the open as an even-aged stand.

Sidecast. To doze or blade soil to the downhill side of a road during construction.

Silvicultural System. A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. Systems are classified according to the method of carrying out the

fellings that remove the mature crop and provide for regeneration and according to the type of forest thereby produced.

Silviculture. Generally, the science and art of cultivating (that is, growing and tending) forest crops. More particularly, it is the theory and practice of controlling the establishment, composition, constitution, and growth of forests.

Site Preparation for Planting. A practice in which the canopy, ground cover, and soil are modified with the intent of rendering them suitable for planting trees for the purpose of regenerating the site.

Site Preparation. A general term referring to the removal of unwanted vegetation, slash, roots, and stones from a site before reforestation.

Slash. The residue left on the ground after timber cutting and/or accumulating there as a result of storm, fire, or other damage. It includes unused logs, uprooted stumps, broken or uprooted stems, branches, twigs, leaves, bark, and chips.

Snag. A nonliving, standing tree. The interior of the snag may be sound or rotted.

Softwoods. Coniferous trees, usually evergreen, having needles or scalelike leaves.

Species Habitat Relationships. The Wildlife and Fish Habitat Relationships Program, being developed in the Alaska Region, is a system that organizes biological data, from various ecosystems, in a conceptual framework that assists resource managers in predicting consequences and developing alternatives in land alteration schemes.

Species Selected as Indicators of the Effects of Management. Certain vertebrate and/or invertebrate species are identified and selected in Forest Plans for monitoring. The following categories are used to select species as appropriate: endangered and threatened plant and animal species identified on State and Federal lists; species with special habitat needs that may be influenced significantly by planned management programs; species commonly hunted, fished, or trapped; and additional plant or animal species selected because their population changes are believed to indicate effects of management activities on other species of a major biological community or on water quality.

Standards and Guidelines. A principle requiring a specific level of attainment; a rule to measure against; a mandatory requirement.

Strategic/Critical Mineral. Any of the following: cobalt, gold, copper, lead, chromium, nickel, tungsten, barite, vanadium, antimony, phosphate, molybdenum, platinum group, rolumbium, tantalum, silver, aluminum, or tin.

Streamside Strips. A buffer strip of timber or other vegetation left along a stream to protect the fish habitat and water quality.

Subclimax Forest. A plant community representing a successional stage prior to climax.

Subclimax Ecosystem. A system formed by the interaction of a group of organisms with their environment. At subclimax the ecosystem is still evolving and has not reached a final stage of stability.

Suitability. The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.

Suitable Forest Land. See "Timber Classification."

Sustained Yield. The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest System without impairment of the productivity of the land.

T

TMIS. Timber Management Information System designed to store and retrieve timber-related information.

Technologically Marginal. Commercial forest land that requires more sophisticated logging systems than are available.

Temperature Sensitive Streams. Those streams that are susceptible to warming beyond an acceptable level as determined by the interdisciplinary process. (See "Streamside Strips" and "Fish Habitat Management Unit.")

Terminal Transportation Facility (TTF). A facility which is constructed, operated, and maintained as a part of the Forest Development Road system with the intended use of providing access to the National Forests for the transfer of people, goods, and services between water and land. The facilities are expected to be constructed in part on State of Alaska tidelands. The intended term for the site is for at least a period of time as long as the design life of the facility. Uses will typically include periodic industrial operations (log transfer, camp operations, equipment handling), recreational access by floatplane or boat, mineral exploration access, and similar uses.

Thousand-Foot Board Measure (MBM). A method of timber measurement in which the unit is equivalent to 1,000 square feet of lumber 1 inch thick. It can be abbreviated as Mbd. ft., Mbm, or MBF.

Threatened Species. Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future.

Tidal Meadow. Area containing saltwater-tolerant vegetation that is generally above the high tide line but is flooded during extremely high tides.

Timber Classification. Forested land is classified under each of the land management alternatives according to how it relates to the management of the timber resource. The following are definitions of timber classifications used for this purpose.

1. Nonforest--Land that has never supported forests and land formerly forested where use for timber production is precluded by development or other uses.
2. Forest--Land at least 10-percent stocked (based on crown cover) by forest trees of any size, or formerly having had such tree cover and not currently developed for nonforest use.
3. Suitable--Commercial forest land identified as appropriate for timber production in the Forest planning process.
4. Unsuitable--Forest land withdrawn from timber utilization by statute or administrative regulation (for example, wilderness), or identified as not appropriate for timber production in the Forest planning process.
5. Commercial Forest--Forest land tentatively suitable for the production of continuous crops of timber and that has not been withdrawn.

Timber Harvest Schedule. The quantity of timber planned for sale and harvest, by time period, from the area of land covered by the Forest Plan. The first period, usually a decade, of the selected harvest schedule provides the allowable sale quantity. Future periods are shown to establish that sustained yield will be achieved and maintained.

Tongass National Forest. One of two National Forests in Alaska; the Tongass National Forest is located in Southeastern Alaska with three Administrative Areas: the Chatham headquartered in Sitka; the Stikine headquartered in Petersburg; and the Ketchikan headquartered in Ketchikan.

Transportation Mode. This term is used to designate forms of transportation, such as autos, boats, and airplanes.

U

Uneven-Aged Management. The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection.

Utility Logs. Logs that do not meet minimum requirements of Peeler or Sawmill grades, but are suitable for the production of chips to an amount of not less than 50 percent of the GROSS scale.

V-Notch Drainage. A V-shaped stream channel generally on steep-mountainous landscapes. V-notch drainages may be shallow to many feet deep and may be eroded into rock, till, or other types of substrate.

Viable Population. A population that has adequate numbers and dispersion of reproductive individuals to ensure the continued existence of the species population on the planning area.

Village Corporation. An Alaska Native Village Corporation organized under the laws of the State of Alaska as a business for profit or nonprofit corporation to hold, invest, manage and/or distribute lands, property, funds, and other rights and assets for and on behalf of a Native village in accordance with the terms of ANCSA.

Visual Quality Objectives (VQO's). Measurable standards reflecting five different degrees of landscape alteration based upon a landscape's diversity of natural features and the public's concern for scenic quality. The five objectives are preservation, retention, partial retention, modification, and maximum modification. "Inventory" VQO's have not yet undergone trade-off analysis relative to other resources. "Adopted" VQO's reflect analysis involving other resources and become management direction in a selected and approved land management alternative.

1. Preservation--Allows only ecological changes. Management activities, except for very low visual impact recreation facilities, are prohibited. This objective applies to specially classified areas including wilderness.
2. Retention--Provides for management activities that are not visually evident. Management activities are permitted, but the results of those activities on the natural landscape must not be evident to the average viewer.
3. Partial Retention--Management activities may be evident to the viewer, but must remain visually subordinate to the surrounding landscapes.
4. Modification--Management activities may visually dominate the original surrounding landscape, but must borrow from naturally established form, line, color, and texture.
5. Maximum Modification--Land management activities can dominate the natural landscape to a greater extent than in the modification objective except as viewed from background when visual characteristics must be those of natural occurrences within the surrounding area.

Volume Class. Average stand volume usually given as net board feet per acre, Scribner Rule.

W

Wetlands. Those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Wilderness. The 1964 Wilderness Act recognizes wilderness as a distinct resource and defines it as follows: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined in this act to mean an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; has outstanding opportunities for solitude or a primitive and unconfined type of recreation; has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Wild and Scenic Rivers. Those rivers or sections of rivers designated as such by congressional action under the 1968 Wild and Scenic Rivers Act, as supplemented and amended, or those sections of rivers designated as wild, scenic, or recreational by an act of the Legislature of the State or States through which they flow. Wild and scenic rivers may be classified and administered under one or more of the following categories:

1. Wild River Areas--Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
2. Scenic River Areas--Those rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
3. Recreational River Areas--Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Wildlife Corridor. A natural route offering relative ease of travel for terrestrial animals as dictated by landforms, water, and/or vegetation and often descending a ridge or paralleling a river.

Windthrow. Trees uprooted by the wind.

Appendix B

POLICY CROSS-REFERENCE TO THE AREA GUIDE

This appendix is provided to show what happened to each policy of the Southeast Alaska Area Guide in the Regional Planning process.

There are four columns in the Appendix. The first column contains the original text of the Area Guide. The second column contains the text of the Regional Guide. The third column contains the Area Guide policies that have been retained at the Forest level. The fourth column explains the disposition of the Area Guide policies and how the Regional Guide policies were derived.

There are five types of notations in the fourth column describing the disposition of the Area Guide policies:

1. "Area Guide policy adopted as Regional Guide policy." The full text of the original Area Guide policy has been included in Regional Guide Chapter 3, Management Direction, and is now Regional policy, administered at the Regional level.
2. "Area Guide policy retained as Forest policy." The full text of the original Area Guide policy remains to guide management of the Tongass and Chugach National Forests and is administered at the Forest level. The policy is not a Regional Guide policy. Modification of this set of Area Guide policies may occur through the Forest planning process in response to a clear, demonstrated need with public involvement.
3. "Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application." The full text of the original Area Guide policy remains intact as in #2 above. A Regional Guide policy has also been developed which addresses the same theme but usually contains less detail than the forest level Area Guide policy.
4. "Area Guide policy modified and adopted as Regional Guide policy." The Area Guide policy no longer exists; a Regional Guide policy exists that includes the essence of the Area Guide policy. Modifications were made to make the policy Regional in scope (i.e., changing the word Tongass to National Forest) and/or to respond to legislation or regulations.
5. "Area Guide policy deleted." The Area Guide policy no longer exists because it is no longer relevant (e.g., YCC program), or it has been replaced by new national direction in the form of legislation or regulations.

There are also Regional Guide policies that have no Area Guide policies as counterparts. These are the results of legislation, regulations, and other national Forest Service direction.

Human and Community Development

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. A comprehensive community and Regional socioeconomic profile for the planning area will be developed during the land management planning process using either one or a combination of the following:</p> <p>a. Intergovernmental Personnel Act arrangement with the State of Alaska, Department of Community and Regional Affairs.</p> <p>b. Cooperative agreements with the State of Alaska, Department of Community and Regional Affairs.</p> <p>c. Utilization of Forest Service in-house capabilities.</p> <p>d. Utilization of private consultants.</p> <p>e. University of Alaska.</p>	<p>1. Cooperatively develop a comprehensive community and Regional socioeconomic profile for each Administrative Area on the Tongass and Chugach National Forests. Use the available resources of the Forest Service, State of Alaska, private consultants, colleges, and universities.</p>	<p>Southeast Area Guide policy was specific direction for preparation of the Tongass Land Management Plan. Regional Guide policy developed from Area Guide policy for Regional level application.</p>	
<p>2. Forest Service activities will be coordinated with local communities in the following manner:</p> <p>a. The plans and concerns of local communities as represented by their governing bodies and the public involvement process, will be incorporated in alternatives developed at all Forest Service planning levels.</p> <p>b. Community preferences will represent an integral factor in Forest Service decisions where communities and residents may be significantly affected.</p>	<p>2. Forest Service activities will be coordinated with local communities in the following manner:</p> <p>a. The plans and concerns of local communities, as represented by their governing bodies and the public involvement process, will be incorporated in alternatives developed at all Forest Service planning levels.</p> <p>b. Community preferences will represent an integral factor in Forest Service decisions where communities and residents may be significantly affected.</p>	<p>Area Guide policy adopted as Regional Guide policy in response to public comments.</p>	
<p>c. Alternatives developed during the planning process must reflect community needs and preferences as expressed through the public involvement process prior to starting the environmental impact statement procedure. Examples of community needs might include areas required for recreation or subsistence activities, aesthetic quality, lifestyle options, transportation system options and community growth goals.</p>	<p>c. Alternatives developed during the planning process must reflect community needs and preferences as expressed through the public involvement process prior to starting the environmental impact statement procedure. Examples of community needs might include areas required for recreation or subsistence activities, aesthetic quality, lifestyle options, transportation system options, and community growth goals.</p>		

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
3. The Forest Service recognizes the State of Alaska as having the primary leadership role in setting policy governing the establishment of temporary or permanent communities.	3. The Forest Service recognizes the State of Alaska as having the primary leadership role in setting policy governing the establishment of temporary or permanent communities.		Area Guide policy adopted as Regional Guide policy.
4. The Forest Service will promote research to quantify nonconsumptive and amenity uses so that these values can be more easily equated with those uses already having quantifiable values.	4. The Forest Service will promote research to quantify nonconsumptive and amenity uses so that these values can be more easily equated with those uses already having quantifiable values.		Area Guide policy adopted as Regional Guide policy.
5. Provide opportunities, such as an independent timber sale program geared to small operators, for the development or utilization of forest resources by small entrepreneurs as well as by large companies or corporations.	5. Provide opportunities, such as an independent timber sale program geared to small operators, for the development or utilization of forest resources by small entrepreneurs as well as large companies or corporations.		Area Guide policy adopted as Regional Guide policy.
6. Develop an action program to increase YCC facilities and activities. This program will include coordination with the State of Alaska and other Federal agencies involved with YCC.	6. Omitted.		Termination of YCC program
7. Work with citizen groups, service organizations, and local and State of Alaska governments to initiate needed employment and manpower programs.	7. Work with citizen groups, service organizations, and local and State of Alaska governments to initiate needed employment and manpower programs.		Area Guide policy adopted as Regional Guide policy.
8. Through the Forest Service's State and Private Forestry programs, work with the State agencies and private land owners to encourage forest industries, including tourism, outdoor recreation, timber and other opportunities that will contribute to economic development and stability.	8. Through the Forest Service's State and Private Forestry programs, work with the State agencies and private land owners to encourage forest industries, including tourism, outdoor recreation, timber, and other opportunities that will contribute to economic development and stability.		Area Guide policy adopted as Regional Guide policy.

Human and Community Development (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
No Area Guide policy	<p>9. Work cooperatively with State agencies and private organizations in carrying out the subsistence provisions in the Alaska Lands Act. The State of Alaska has the lead role in determining viable subsistence, sport, and commercial use levels for fish and game populations.</p>		New policy developed for Regional application in response to Alaska Lands Act.
No Area Guide policy	<p>10. Use economic efficiency as one of the standards for evaluating alternatives in environmental analyses where significant changes in costs and/or outputs are considered.</p>		New policy developed for Regional application incorporating Forest Service internal direction.
No Area Guide policy	<p>11. Identify and display economic and social impacts of programs and management alternatives in environmental analyses where significant changes in outputs between alternatives are considered. Give particular emphasis to industries that are dependent on National Forest System program outputs such as timber, fisheries, and tourism.</p>		New policy developed for Regional application in response to Alaska Lands Act.
No Area Guide policy	<p>12. A well-designed, well-executed public involvement program is important in identifying public preferences and social values. Develop and implement comprehensive public involvement activities during major Forest Service planning efforts. Include a systematic analysis process that is based on established professional principles.</p>		New policy developed for Regional application in response to Alaska Lands Act.

Soil and Air

Southeast Alaska Area Guide Policies		Regional Guide Policies		Forest Plan Policies		Comments
Soil		Soil		Soil		
<p>1. A soil monitoring program will be continued on the Forest to measure soil behavior and response under various conditions. This program will provide a scientific means to evaluate losses of nutrients and/or soil material as a result of land management activities. Management standards and techniques will be revised, if necessary, as a result of this program to meet the applicable goals and policies of the Federal Water Pollution Control Act and those listed in the soil, water, minerals, fisheries and timber sections of this Guide. Management decisions directed at or affecting the soil resource will be based on the best available knowledge to provide a sound basis for professional judgment.</p>		<p>1. Continue a soil monitoring program on the Forests to measure soil behavior and response under various conditions. This program will provide a scientific means to evaluate losses of nutrients and/or soil material as a result of land management activities.</p>		<p>1. A soil monitoring program will be continued on the Forest to measure soil behavior and response under various conditions. This program will provide a scientific means to evaluate losses of nutrients and/or soil material as a result of land management activities. Management standards and techniques will be revised, if necessary, as a result of this program to meet the applicable goals and policies of the Federal Water Pollution Control Act and those listed in the soil, water, minerals, fisheries and timber sections of this Guide. Management decisions directed at or affecting the soil resource will be based on the best available knowledge to provide a sound basis for professional judgment.</p>		Area Guide policy retained as Forest policy. Regional policy developed from Area Guide policy.
<p>2. A soil resource inventory and report will be made for all projects significantly affecting soil resources. The inventory and reports will identify and describe the soils, determine their capabilities and limitations and provide information necessary for preparing prescriptions to manage and protect the soil and other resources consistent with the goals and policies established in this Guide.</p>		<p>2. Conduct a soil resource inventory and prepare a report for all projects significantly affecting soil resources.</p>		<p>2. A soil resource inventory and report will be made for all projects significantly affecting soil resources. The inventory and reports will identify and describe the soils, determine their capabilities and limitations and provide information necessary for preparing prescriptions to manage and protect the soil and other resources consistent with the goals and policies established in this Guide.</p>		
<p>3. Management activities on braided stream bottom lands will be preceded by an interdisciplinary team (IDT) evaluation. Timber will not be cut unless natural or artificial regeneration is assured within 5 years of harvest; and fish, water and soil resources can be adequately protected. The adequacy of protection will be determined through the IDT process.</p>		<p>3. Management activities on braided stream bottom lands will be preceded by an interdisciplinary team (IDT) evaluation. Timber will not be cut unless natural or artificial regeneration is assured within 5 years of harvest; and fish, water and soil resources can be adequately protected. The adequacy of protection will be determined through the IDT process.</p>		<p>3. Management activities on braided stream bottom lands will be preceded by an interdisciplinary team (IDT) evaluation. Timber will not be cut unless natural or artificial regeneration is assured within 5 years of harvest; and fish, water and soil resources can be adequately protected. The adequacy of protection will be determined through the IDT process.</p>		Area Guide policy adopted as Regional Guide policy in response to public comments.
<p>4. Tractor logging will be permitted only on soils where natural or artificial regeneration occurs within 5 years with no impairment of soil productivity and where fish and water resources can be protected.</p>		<p>4. Tractor logging will be permitted only on soils where natural or artificial regeneration occurs within 5 years with no impairment of soil productivity and where fish and water resources can be protected.</p>		<p>4. Tractor logging will be permitted only on soils where natural or artificial regeneration occurs within 5 years with no impairment of soil productivity and where fish and water resources can be protected.</p>		

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
Soil	Soil	Soil	Soil
<p>5. Provisions for revegetating and stabilizing temporary roads, landings, borrow pits, skid trails and other human-caused soil disturbances will be planned through the IDT process and incorporated into project plans. Cut and fill slopes that require stabilization will be stabilized by the most appropriate means as determined through the IDT process. Stabilization may include revegetation or retaining structures or combinations of both methods. Where revegetation measures are required, seeding or planting will take place the first growing season following disturbance. Temporary roads, landings and skid trails will be rehabilitated following cessation of use. Borrow and rock pits no longer needed will be drained, unless developed for fish or waterfowl, and mineral soil revegetated using the most appropriate means. Areas already disturbed or not covered by contract will be rehabilitated on a priority basis by the Forest Service as watershed rehabilitation money becomes available. Highly erodible terrain directly affecting fish and water resources will receive the highest priority when scheduling rehabilitation projects.</p>	<p>5. Incorporate provisions for revegetating and stabilizing temporary roads, landings, borrow pits, skid trails, and other human-caused soil disturbances into project plans. Where revegetation measures are required, seed or plant the first growing season following disturbance or cessation of use. Drain borrow and rock pits no longer needed, unless developed for fish or waterfowl. Revegetate mineral soils, using the most appropriate means. Rehabilitate areas already disturbed or not covered by contract on a priority basis as watershed rehabilitation money becomes available. Highly erodible terrain directly affecting fish and water resources is the highest priority for scheduling rehabilitation projects.</p>	<p>5. Provisions for revegetating and stabilizing temporary roads, landings, borrow pits, skid trails and other human-caused soil disturbances will be planned through the IDT process and incorporated into project plans. Cut and fill slopes that require stabilization will be stabilized by the most appropriate means as determined through the IDT process. Stabilization may include revegetation or retaining structures or combinations of both methods. Where revegetation measures are required, seeding or planting will take place the first growing season following disturbance. Temporary roads, landings and skid trails will be rehabilitated following cessation of use. Borrow and rock pits no longer needed will be drained, unless developed for fish or waterfowl, and mineral soil revegetated using the most appropriate means. Areas already disturbed or not covered by contract will be rehabilitated on a priority basis by the Forest Service as watershed rehabilitation money becomes available. Highly erodible terrain directly affecting fish and water resources will receive the highest priority when scheduling rehabilitation projects.</p>	<p>Area Guide policy retained as Forest policy. Regional policy developed from Area Guide policy.</p>
<p>6. Logging or roading will not be done on slopes greater than 75 percent unless approved in advance by the Forest Supervisor following IDT planning. Developmental activities on slopes between 35 and 75 percent will receive prescriptions by the IDT to reduce the possibility of soil failure. Developmental activities will not be approved on terrain where IDT evaluation indicates a high likelihood of mass failure and where mitigating measures are not practical.</p>	<p>6. Forest Supervisors must approve logging or road building on slopes greater than 75 percent. Prescriptions will be prepared to reduce the possibility of soil failure on slopes between 35 and 75 percent if a risk of failure exists.</p>	<p>6. Logging or roading will not be done on slopes greater than 75 percent unless approved in advance by the Forest Supervisor following IDT planning. Developmental activities on slopes between 35 and 75 percent will receive prescriptions by the IDT to reduce the possibility of soil failure. Developmental activities will not be approved on terrain where IDT evaluation indicates a high likelihood of mass failure and where mitigating measures are not practical.</p>	<p>Area Guide policy retained as Forest policy. Regional policy developed from Area Guide policy.</p>

Southeast Alaska Area Guide Policies		Regional Guide Policies		Forest Plan Policies		Comments
<u>Soil</u>	<u>Soil</u>	<u>Soil</u>	<u>Soil</u>	<u>Soil</u>	<u>Soil</u>	
7. Crossings of V-notched drainages will be designed to prevent debris jamming, unless IDT evaluation indicates that a culvert is acceptable. Crossing locations and bridge designs will be determined through the IDT process.	7. Design crossings of drainages to prevent debris jamming.	7. Crossings of V-notched drainages will be designed to prevent debris jamming, unless IDT evaluation indicates that a culvert is acceptable. Crossing locations and bridge designs will be determined through the IDT process.	7. Crossings of V-notched drainages will be designed to prevent debris jamming, unless IDT evaluation indicates that a culvert is acceptable. Crossing locations and bridge designs will be determined through the IDT process.		Area Guide policy retained as Forest policy. Regional policy developed for Area Guide policy.	
8. Rock quarries and borrow pits will be planned through the IDT process. Blasting will be avoided on potentially landslide-prone areas during or within 72 hours following heavy rainstorms, as determined by a hydrologist. Where other sources are available, borrow pits will not be located on such areas. Where no other alternative exists, quarries will be stripped of their overburden and the excavated material hauled to a stable location, seeded with grass and fertilized. The IDT's engineering representative will approve the location of the pit and waste area after advice from appropriate specialists.	8. Locate rock quarries and borrow pits and time their use to minimize the impacts upon other resource values.	8. Rock quarries and borrow pits will be planned through the IDT process. Blasting will be avoided on potentially landslide-prone areas during or within 72 hours following heavy rainstorms, as determined by a hydrologist. Where other sources are available, borrow pits will not be located on such areas. Where no other alternative exists, quarries will be stripped of their overburden and the excavated material hauled to a stable location, seeded with grass and fertilized. The IDT's engineering representative will approve the location of the pit and waste area after advice from appropriate specialists.	8. Rock quarries and borrow pits will be planned through the IDT process. Blasting will be avoided on potentially landslide-prone areas during or within 72 hours following heavy rainstorms, as determined by a hydrologist. Where other sources are available, borrow pits will not be located on such areas. Where no other alternative exists, quarries will be stripped of their overburden and the excavated material hauled to a stable location, seeded with grass and fertilized. The IDT's engineering representative will locate the pit and waste area after advice from appropriate specialists.		Area Guide policy retained as Forest policy. Regional policy developed from Area Guide policy. Last sentence changed because IDT members do not "approve." Only District Ranger, Forest Supervisor, or Regional Forester may "approve."	
No Area Guide Policy	9. Conduct development activities on organic soils and mineral soils classified as wetlands in compliance with existing executive orders.				New Regional policy developed in response to Executive Order 11990, Protection of Wetlands.	
<u>Air</u>	<u>Air</u>	<u>Air</u>	<u>Air</u>	<u>Air</u>	<u>Air</u>	
No Area Guide policy	Smoke management will be coordinated with the Alaska Department of Environmental Conservation to assure that air-quality increments are not exceeded. Local sources of emission will be evaluated to assure that airshed integrity is maintained.				New Regional policy developed in response to the National Forest Management Act.	

Water

Comments

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	
<p>1. Maintain a long-term monitoring program on representative watersheds to assess land management impacts on water quality and stream and site productivity in accordance with the objective limitations of the non-point pollution monitoring program.</p> <p>Data collected through the monitoring program will be used to:</p> <ul style="list-style-type: none"> a. Determine compliance with and evaluation of Alaska State Water Quality Standards. b. Evaluate impacts of management practices on water resources of the Tongass National Forest. c. Develop "best management practices" to be implemented on unmonitored watersheds to protect watershed values and assure compliance with water quality standards. 	<p>1. Maintain a long-term monitoring program on representative watersheds to assess land management impacts on water quality and stream and site productivity.</p> <p>Data collected through the monitoring program will be used to:</p> <ul style="list-style-type: none"> a. Determine compliance with and evaluation of Alaska State Water Quality Standards. b. Evaluate impacts of management practices on water resources of the Tongass National Forest. c. Develop "best management practices" to be implemented on unmonitored watersheds to protect watershed values and assure compliance with water quality standards. 	<p>1. Maintain a long-term monitoring program on representative watersheds to assess land management impacts on water quality and stream and site productivity in accordance with the objective limitations of the non-point pollution monitoring program.</p> <p>Data collected through the monitoring program will be used to:</p> <ul style="list-style-type: none"> a. Determine compliance with and evaluation of Alaska State Water Quality Standards. b. Evaluate impacts of management practices on water resources of the Tongass National Forest. c. Develop "best management practices" to be implemented on unmonitored watersheds to protect watershed values and assure compliance with water quality standards. 	<p>Southeast Area Guide policy retained as Forest policy in response to public comments. Regional policy developed from Area Guide policy for Regional level application.</p>
<p>2. Maintain a long-term monitoring program on representative log dump and storage sites to assess the effects of organic accumulation and leachates on water quality and marine biota.</p>	<p>2. Maintain a long-term monitoring program on representative log transfer and terminal transportation facilities to assess the effects on water quality and marine habitat.</p>	<p>2. Maintain a long-term monitoring program on representative log dump and storage sites to assess the effects of organic accumulation and leachates on water quality and marine biota.</p>	<p>Southeast Area Guide policy retained as Forest policy in response to public comments. Regional policy developed from Area Guide policy for Regional level application.</p>
<p>3. Cooperate and participate with the State in identifying and monitoring new non-point water pollution sources and enforcing water quality standards. The Regional Forester will serve on the State Policy Advisory Committee (PAC) to aid State planning in dealing with non-point pollution problems under Section 208 of the Federal Water Pollution Control Act Amendments of 1972.</p>	<p>3. Cooperate and participate with the State of Alaska through the 208 Water Quality Cooperative Agreement to identify and monitor new non-point water pollution sources and to enforce water quality standards.</p>	<p>3. Cooperate and participate with the State of Alaska through the 208 Water Quality Cooperative Agreement to identify and monitor new non-point water pollution sources and to enforce water quality standards.</p>	<p>Clarification of Area Guide policy adopted for regional application. The State policy Advisory Committee no longer exists. The 208 cooperative agreement outlines the working relationship between the State and the Forest Service for dealing with non-point pollution problems.</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
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4. Water resource inventories and reports will be used to evaluate potential impacts of land management activities. Sensitive landforms where non-point source pollution problems are likely to occur will be identified and the probable impacts of management alternatives evaluated. The policies below will be followed unless an IDT investigation indicates acceptable management alternatives exist, in which case site-specific prescriptions will be applied to assure watershed protection:

- Roads will not be built across alluvial flood plains or mass wastage areas.
- Roads will only be built across streams in stable reaches.
- Roads and borrow pits will be located away from water courses. Whenever locations near stream courses are recommended, provisions must be made for drainage from roads or materials sites to run off through a vegetative screen or sediment basin prior to entering a water body.
- Channel changes will require approval by the Forest Supervisor after consultation with the Alaska Department of Fish and Game.

No Area Guide Policy

5. Manage floodplains to avoid adverse impacts associated with occupancy and modification and in compliance with executive orders.

4. Use water resource inventories and reports to evaluate potential impacts of land management activities. Identify sensitive landforms where non-point source pollution problems are likely to occur and evaluate probable impacts of management alternatives.

4. Water resource inventories and reports will be used to evaluate potential impacts of land management activities. Sensitive landforms where non-point source pollution problems are likely to occur will be identified and the probable impacts of management alternatives evaluated. The policies below will be followed unless an IDT investigation indicates acceptable management alternatives exist, in which case site-specific prescriptions will be applied to assure watershed protection:

- Roads will not be built across alluvial flood plains or mass wastage areas.
- Roads will only be built across streams in stable reaches.
- Roads and borrow pits will be located away from water courses. Whenever locations near stream courses are recommended, provisions must be made for drainage from roads or materials sites to run off through a vegetative screen or sediment basin prior to entering a water body.
- Channel changes will require approval by the Forest Supervisor after consultation with the Alaska Department of Fish and Game.

Regional Guide policy developed in response to Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands.

Fish

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. The Forest Service, the Alaska Department of Fish and Game, the Alaska Department of Environmental Conservation, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service will be fully coordinated at all levels of the planning and decisionmaking processes. Optimum use will be made of the information, data and expertise of these agencies with the understanding that all are partners in achieving the collective goals of their respective constitutional and statutory authorities.</p>	<p>1. Fully coordinate Forest Service activities with other agencies involved with the fishery resource.</p>	<p>1. The Forest Service, the Alaska Department of Fish and Game, the Alaska Department of Environmental Conservation, and the National Marine Fisheries Service will be fully coordinated at all levels of the planning and decisionmaking processes. Optimum use will be made of the information, data and expertise of these agencies with the understanding that all are partners in achieving the collective goals of their respective constitutional and statutory authorities.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>2. Where Forest Service habitat management or land use decisions are or may be affected by Alaska Department of Fish and Game management programs, the Forest Service and the Department will exchange their concerns and work to develop mutually acceptable solutions. Included will be situations involving siting of aquaculture facilities; user-group conflicts over land management determinations; questions on determination of access and permitted activities and concentration or dispersal of harvesting pressures; and other instances where fish habitat, fisheries resources and land use management are intertwined.</p>	<p>2. Solve mutual problems and achieve common goals and objectives through the Master Memorandum of Understanding between the Forest Service and State and Federal agencies and aquaculture associations.</p>	<p>2. Where Forest Service habitat management or land use decisions are or may be affected by Alaska Department of Fish and Game management programs, the Forest Service and the Department will exchange their concerns and work to develop mutually acceptable solutions. Included will be situations involving siting of aquaculture facilities; user-group conflicts over land management determinations; questions on determination of access and permitted activities and concentration or dispersal of harvesting pressures; and other instances where fish habitat, fisheries resources and land use management are intertwined.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>3. The Forest Service recognizes fishery resources as a major component of the Tongass National Forest and the source of numerous important products, benefits and services. Fishery resources are to be considered no more or no less important than the other renewable resources of the National Forest.</p>	<p>3. The Forest Service recognizes fishery resources as a major component of the National Forests and the source of numerous important products, benefits, and services. Fishery resources are to be considered no more or no less important than the other renewable resources of the National Forests.</p>		<p>Area Guide policy adopted as Regional Guide policy in response to public comments.</p>
<p>4. Management decisions concerning fish habitat will be based on sufficient knowledge, information and data to provide a sound basis for professional judgment.</p>		<p>4. Management decisions concerning fish habitat will be based on sufficient knowledge, information and data to provide a sound basis for professional judgment.</p>	<p>Area Guide policy retained as Forest policy in response to public comments.</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>5. The Forest Service designates any lake or stream on National Forest land that supports anadromous or resident fish as fish habitat. This includes, but is not limited to, all streams designated by the Alaska Department of Fish and Game as salmon streams and potential habitat that could be utilized as a result of enhancement programs. The Forest Service recognizes that the entire watershed, including trees, shrubs and grasses, and particularly streamside and lakeside vegetation, is an integral component of the total ecosystem and will be managed as such.</p>	<p>4. The Forest Service designates any lake or stream on National Forest land that supports anadromous or resident fish as fish habitat. This includes, but is not limited to, all streams designated by the Alaska Department of Fish and Game as salmon streams and potential habitat which could be used as a result of enhancement programs. The Forest Service recognizes that the entire watershed, including trees, shrubs and grasses, and particularly streamside and lakeside vegetation, is an integral component of the total ecosystem and should be managed as such.</p>	<p>Area Guide policy adopted as Regional Guide policy in response to public comments.</p>	
<p>6. At the allocation level, the interdisciplinary team process will provide sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas and the cumulative impacts of multiple land use activities over large areas. In the prescriptive phases of the planning, IDT's will validate allocations, write prescriptions and monitor actions.</p>		<p>6. At the allocation level, the interdisciplinary team process will provide sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas and the cumulative impacts of multiple land use activities over large areas. In the prescriptive phases of the planning, IDT's will validate allocations, write prescriptions and monitor actions.</p>	<p>Area Guide policy retained as Forest policy. Reference to LUD's deleted as Chugach National Forest does not have LUD's.</p>
<p>a. During the land management plan phase, an IDT will assist in land allocation decisions by providing sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas. Of special importance will be identification of areas which warrant designation as LUD 1, II or III because of high vulnerability to development impacts, productive capacity, associated recreational opportunities, or other factors. In addition, the IDT process will be directed at responding through allocations to the potentiality of cumulative or collective impacts resulting from multiple land use activities over large areas which may escape notice or control during the implementation phases.</p>		<p>a. During the land management plan phase, an IDT will assist in land allocation decisions by providing sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas. Of special importance will be identification of areas which warrant special designation because of high vulnerability to development impacts, productive capacity, associated recreational opportunities, or other factors. In addition, the IDT process will be directed at responding through allocations to the potentiality of cumulative or collective impacts resulting from multiple land use activities over large areas which may escape notice or control during the implementation phases.</p>	
<p>b. During the prescriptive phase, the IDT process will be utilized as described in the succeeding policies.</p>		<p>b. During the prescriptive phase, the IDT process will be utilized as described in the succeeding policies.</p>	

Fish (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>7. All proposals for land use 1/ (e.g., logging, hatcheries, hydroelectric projects, developed recreation facilities) will require the completion of a prescriptive plan, with the participation of an IDT. The plan will specify: (1) appropriate fish habitat management units and (2) prescriptions necessary to meet the goal for fish habitat set forth in this section of the Guide. Mineral development activities require an operating plan that will involve the IDT process.</p>	<p>5. Complete a prescriptive plan for proposals for all land use activities:</p>	<p>7. All proposals for land use 1/ (e.g., logging, hatcheries, hydroelectric projects, developed recreation facilities) will require the completion of a prescriptive plan, with the participation of an IDT. The plan will specify: (1) appropriate fish habitat management units and (2) prescriptions necessary to meet the goal for fish habitat set forth in this section of the Guide. Mineral development activities require an operating plan that will involve the IDT process.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>a. The Fish Habitat Management Unit (FHMU) will consist of all components of the fish habitat as identified through the IDT process. The Unit may be as narrow as all trees within crown height of a fish stream; it may be widened in areas of high potential windthrow or unstable soils or as otherwise necessary to recognize the characteristics and sensitivities of the area to meet the management goal.</p>	<p>a. The Fish Habitat Management Unit (FHMU) includes all components of the fish habitat as identified through the interdisciplinary process. The FHMU is that portion of land including the stream channel and the stream banks defined for the protection of stream habitat and maintenance of stream productivity. Give special consideration to that area at least 100 feet on either side of the stream.</p>	<p>a. The Fish Habitat Management Unit (FHMU) will consist of all components of the fish habitat as identified through the IDT process. The Unit may be as narrow as all trees within crown height of a fish stream; it may be widened in areas of high potential windthrow or unstable soils or as otherwise necessary to recognize the characteristics and sensitivities of the area to meet the management goal.</p>	
<p>Within the FHMU, timber management practices and other land use activities will be prescribed to the degree necessary to meet management goals for fish habitat. The method of logging within the FHMU will provide for protection of soils, duff and litter layers, shrubs and uncut trees. Special logging methods, streamside strips of uncut timber, cutting unit layout schemes and other appropriate approaches will be recognized as viable options to protect fish habitat.</p>	<p>Within the FHMU, timber management practices and other land use activities are prescribed to meet the management goals for fish habitat.</p>	<p>Within the FHMU, timber management practices and other land use activities will be prescribed to the degree necessary to meet management goals for fish habitat. The method of logging within the FHMU will provide for protection of soils, duff and litter layers, shrubs and uncut trees. Special logging methods, streamside strips of uncut timber, cutting unit layout schemes and other appropriate approaches will be recognized as viable options to protect fish habitat.</p>	
<p>Those waters determined not to be fish habitat but which influence fish habitat will be adequately protected to ensure that the quality of freshwater and marine fish habitat downstream is not impaired. Such protection measures are described in the Soil and Water Accounts of this Guide.</p>	<p>b. Identify temperature-sensitive streams, recognizing State water quality standards pertaining to fish habitat. Such streams require special prescriptions for management of the shade-producing streamside overstory (trees, shrubs, grasses). The amount of overstory that can be removed is determined by reference to guidelines in <u>The Temperature Sensitive Stream, 1977</u>, until revised.</p>	<p>Those waters determined not to be fish habitat but which influence fish habitat will be adequately protected to ensure that the quality of freshwater and marine fish habitat downstream is not impaired. Such protection measures are described in the Soil and Water Accounts of this Guide.</p>	
<p>1/ This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service constituency.</p>	<p>1/ This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service constituency.</p>	<p>1/ This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service constituency.</p>	

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b. Localized management and protection prescriptions that are based upon the characteristics and sensitivities of the area and which will meet management goals will be developed by the IDT process. Input used by the IDT will include evaluation of present and potential spawning and rearing habitat for anadromous and resident fish of the main stream or lake and all tributaries. Unless other measures are specified by the IDT process, the prescriptions for all FPMU will include the following:

(1) All trees within crown height of a fish stream will be felled away from the stream except those which cannot be felled away from the stream for safety reasons and which are marked on the ground by a sale administrator. Any tree felled into or across a fish stream must be removed within 48 hours. Within areas designated for cutting, felled or windfallen trees must be bucked and limbed clear of the streamcourse debris entering the stream.

(2) Significant quantities of limbs, branches, bark, sediment and other identifiable logging debris will be removed from fish streams and areas subject to flooding to a point above the high water mark within 48 hours after such debris is deposited.

(3) Streambank brush, grass and trees not designated for cutting will be protected to provide bank stability, shade and terrestrial insect habitat.

(4) All logs will be fully suspended when yarding across any designated fish stream. Fish streams will be identified on the project.

b. Localized management and protection prescriptions that are based upon the characteristics and sensitivities of the area and which will meet management goals will be developed by the IDT process. Input used by the IDT will include evaluation of present and potential spawning and rearing habitat for anadromous and resident fish of the main stream or lake and all tributaries. Unless other measures are specified by the IDT process, the prescriptions for all FPMU will include the following:

(1) All trees within crown height of a fish stream will be felled away from the stream except those which cannot be felled away from the stream for safety reasons and which are marked on the ground by a sale administrator. Any tree felled into or across a fish stream must be removed within 48 hours. Within areas designated for cutting, felled or windfallen trees must be bucked and limbed clear of the streamcourse debris entering the stream.

(2) Significant quantities of limbs, branches, bark, sediment and other identifiable logging debris will be removed from fish streams and areas subject to flooding to a point above the high water mark within 48 hours after such debris is deposited.

(3) Streambank brush, grass and trees not designated for cutting will be protected to provide bank stability, shade and terrestrial insect habitat.

(4) All logs will be fully suspended when yarding across any designated fish stream. Fish streams will be identified on the project.

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(5) Temperature-sensitive streams will

be identified, recognizing State water quality standards pertaining to fish habitat. Such streams will require special restrictions on canopy removal, including:

(a) A percentage limit of stream-side overstory/canopy which may be removed in the initial entry.

(b) An amount of brush and understorey, including scrub trees, that will be left standing and not damaged to the extent their shade-producing capability is materially affected.

(c) Spaces between openings (described by size and shape) and areas which will not be cut (described by width and length and cardinal direction).

(5) Location of roads within an FHMU, parallel to fish streams and crossing fish streams will be permitted only where other locations are not feasible and the management goal for fish habitat can be met. Where roads are located near fish streams, introduction of sediment must be avoided; sidecasting and waste materials must not encroach upon the streamcourse; and as much undisturbed ground cover as possible shall be left between the road and the stream. Complete endhaul of waste material will be required where roads are located near fish streams when there is the probability of downhill movement of this material into the stream below. Fill will be placed into fish streams only when considered through the IDT process to be the best alternative. Fish passage must be assured at all locations where roads cross fish streams. Prescriptions will specify permissible uses of heavy machinery and the timing of road construction activities.

Area Guide policy retained as Forest policy except 7.b.(5) which is superseded by Regional Guide policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>(7) The use of intertidal gravel as a source of borrow shall not be allowed in areas where pink and chum salmon spawn.</p>		<p>(6) The use of intertidal gravel as a source of borrow shall not be allowed in areas where pink and chum salmon spawn.</p>	Area Guide policy retained as Forest policy.
<p>(8) Blasting that adversely affects fish spawning beds will be limited to times when eggs and alevins are not vulnerable. Safe times and distances will be determined on a site-by-site basis in conjunction with Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Game Wildlife Service.</p>		<p>(7) Blasting that adversely affects fish spawning beds will be limited to times when eggs and alevins are not vulnerable. Safe times and distances will be determined on a site-by-site basis in conjunction with Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Wildlife Service.</p>	
<p>(9) Streamcourses may not be changed or diverted without written approval from the Forest Supervisor, who shall issue such approval after consultation with Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Wildlife Service and where it is clear that habitat impairment will not result.</p>		<p>(8) Streamcourses may not be changed or diverted without written approval from the Forest Supervisor, who shall issue such approval after consultation with Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Wildlife Service and where it is clear that habitat impairment will not result.</p>	
<p>(10) A plan and time schedule for falling and yarding timber within any FPMU will be developed and approved by the Forest Service and delivered to the operator before that unit is released for cutting.</p>		<p>(9) A plan and time schedule for falling and yarding timber within any FPMU will be developed and approved by the Forest Service and delivered to the operator before that unit is released for cutting.</p>	
<p>(11) Where the IDT process determines that soil conditions, water temperatures, logistical problems or other factors are such that an activity cannot be carried out in conformance with the goals and policies of the Soil, Water and Fish Accounts of the Guide, those activities will not be permitted.</p>		<p>(10) Where the IDT process determines that soil conditions, water temperatures, logistical problems or other factors are such that an activity cannot be carried out in conformance with the goals and policies of the Soil, Water and Fish Accounts of the Guide, those activities will not be permitted.</p>	
<p>8. The Forest Service will coordinate with State and Federal agencies in maintaining a continuous program for detailed research, monitoring and assessment of the impacts of land use activities on fish habitat. Research results will be utilized to refine management plans, determine their relative success and to modify forest management practices where necessary to insure that management goals are met.</p>	<p>6. Coordinate with State and Federal agencies in maintaining a continuous program for detailed research, monitoring, and assessment of the impacts of land-use activities on fish habitat. Conduct monitoring programs to determine the implementation effects of Forest Plan standards and guidelines on fish habitat.</p>		Area Guide policy modified to reflect requirements of National Forest Management Act and adopted as Regional Guide policies.

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9. The Forest Service will insure that land use activities in or affecting Fish Habitat Management Units are carried out in full compliance with applicable plans and policies. Policies will be stipulated in appropriate contracts. Where significant violations or instances of damage or unforeseen problems occur, whether reported by Forest Service personnel or other agencies or individuals, the following remedial steps will be taken:

a. All agencies having responsibilities in the area of concern will be immediately informed by the Forest Supervisor that a problem situation has arisen. Specialists and other individuals with expertise applicable to the problem will also be contacted as soon as possible and brought to the scene if they may be of assistance.

b. If the situation arises in conjunction with a contracted or permitted activity, appropriate officers or individuals will be instructed to take immediate remedial action within the full limits of the contract or permit to protect the environment, to repair any damage, and to prevent any further recurrence. If it appears that the problem has arisen from a misassessment of the physical characteristics of the area, operations in the area will be suspended until an investigation by specialists is conducted. The Forest Supervisor shall require that the contractor or permittee inform him of remedial measures which are within their capability and the time required to bring them into operation. Concurrently, the Forest Service will undertake all measures to protect and repair the environment which are within the capability of the contractor.

c. In the event the contractor or permittee fails to take corrective measures within its contract or permit responsibility, the Forest Service shall terminate operations in the area until there is compliance.

9. The Forest Service will insure that land use activities in or affecting Fish Habitat Management Units are carried out in full compliance with applicable plans and policies. Policies will be stipulated in appropriate contracts. Where significant violations or instances of damage or unforeseen problems occur, whether reported by Forest Service personnel or other agencies or individuals, the following remedial steps will be taken:

a. All agencies having responsibilities in the area of concern will be immediately informed by the Forest Supervisor that a problem situation has arisen. Specialists and other individuals with expertise applicable to the problem will also be contacted as soon as possible and brought to the scene if they may be of assistance.

b. If the situation arises in conjunction with a contracted or permitted activity, appropriate officers or individuals will be instructed to take immediate remedial action within the full limits of the contract or permit to protect the environment, to repair any damage, and to prevent any further recurrence. If it appears that the problem has arisen from a misassessment of the physical characteristics of the area, operations in the area will be suspended until an investigation by specialists is conducted. The Forest Supervisor shall require that the contractor or permittee inform him of remedial measures which are within their capability and the time required to bring them into operation. Concurrently, the Forest Service will undertake all measures to protect and repair the environment which are within the capability of the contractor.

c. In the event the contractor or permittee fails to take corrective measures within its contract or permit responsibility, the Forest Service shall terminate operations in the area until there is compliance.

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| <p>d. Where available as a remedy, restitution for impairment of habitat productivity will be sought in cooperation with other State and Federal agencies.</p> <p>e. Corrective measures shall be undertaken in consultation with a group of experts convened by the Forest Supervisor from the Forest Service and other State and Federal agencies. Once resolution of the problem has been accomplished, the groups will meet with the U.S. Forest Service staff to determine if additional policies and prescriptions need to be written for preventing recurrences, to identify the cause, and to refine procedures for dealing with such situations.</p> <p>f. The Forest Supervisor shall develop and maintain a standard contingency plan for dealing with damage situations involving fish habitat.</p> <p>g. All actions by the Forest Service shall insure that the fish habitat is returned to its previous condition as soon as possible. In the event of damage, a long-term plan for restoration and prevention of further or recurrent damage shall be developed if there is any potentiality for prolonged or recurring damage.</p> <p>h. The Forest Service will undertake modification of timber sale and other contract and permit provisions to make available an optimum range of authorities and remedies for dealing with instances of fish habitat damage.</p> | <p>d. Where available as a remedy, restitution for impairment of habitat productivity will be sought in cooperation with other State and Federal agencies.</p> <p>e. Corrective measures shall be undertaken in consultation with a group of experts convened by the Forest Supervisor from the Forest Service and other State and Federal agencies. Once resolution of the problem has been accomplished, the groups will meet with the U.S. Forest Service staff to determine if additional policies and prescriptions need to be written for preventing recurrences, to identify the cause, and to refine procedures for dealing with such situations.</p> <p>f. The Forest Supervisor shall develop and maintain a standard contingency plan for dealing with damage situations involving fish habitat.</p> <p>g. All actions by the Forest Service shall insure that the fish habitat is returned to its previous condition as soon as possible. In the event of damage, a long-term plan for restoration and prevention of further or recurrent damage shall be developed if there is any potentiality for prolonged or recurring damage.</p> <p>h. The Forest Service will undertake modification of timber sale and other contract and permit provisions to make available an optimum range of authorities and remedies for dealing with instances of fish habitat damage.</p> |
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Area Guide policy retained as Forest policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	<p>7. Certain species shall be selected as indicators of the effects of management.</p> <p>Describe in Forest Plans the anticipated effect on the fisheries resource, the species selected for monitoring purposes, the reasons for selecting the species, the monitoring schedule, and the expected precision and accuracy of the monitoring process.</p> <p>Use the following criteria to select species as indicators of the effects of management, keeping in mind the need to restrict species to a practicable number:</p> <ul style="list-style-type: none"> a. Threatened or endangered species on Federal lists; b. Species identified in State lists of endangered or threatened species; c. Species for which the planning area comprises a majority of the species total Statewide, Regional, or national habitat; d. Species which represent or reflect environmental suitability for other species (true ecological indicators); e. Species having significant economic value. Normally these species are those commonly fished for sport or commercial use. 		

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
1. Permit applications for aquaculture sites will first be received by the Alaska Department of Fish and Game.	1. Permit applications for aquaculture sites will first be received by the Alaska Department of Fish and Game.		Clarification of Area Guide policy adopted as Regional Guide policy.

1. Permit applications for aquaculture sites will first be received by the Alaska Department of Fish and Game.

2. The Forest Service will consider, in cooperation with the Alaska Department of Fish and Game, land suitable for aquaculture sites. Site availability will depend on the results of land management planning and environmental analysts to determine the compatibility of such sites with other resource and value priorities. Any further site selections or additional criteria will be identified in the Tongass Forest Land Management Plan.

2. The Forest Service will consider, in cooperation with the Alaska Department of Fish and Game and the Regional Aquaculture Associations, land suitable for aquaculture sites. Site availability will depend on the results of land management planning and environmental assessment to determine compatibility of such sites with other resource and value priorities. Any further site selections or additional criteria will be identified in Forest Plans.

3. Conduct aquaculture activities on the Forests under the Memoranda of Understanding supplemental to the three-way Memorandum of Understanding between the Forest Service, the Alaska Department of Fish and Game, and the Regional Aquaculture Association.

Elaboration of Area Guide policy 2 for regional application.

Wildlife

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
1. Policies 1 through 5 in the Section on Fish will apply also to wildlife resources.	1. Fully coordinate with other agencies involved with the wildlife resource.		Clarification of Area Guide policies adopted as Regional Guide policies.
	2. Solve mutual problems and achieve common goals through the Master Memorandum of Understanding between the Forest Service and the Alaska Department of Fish and Game.		
	3. The Forest Service recognizes wildlife resources as a major component of the National Forests and the source of numerous important products, benefits, and services. Wildlife habitat resources are to be considered no more or no less important than the other renewable resources of the National Forests.		
2. Procedures and concepts with respect to the Sikes Act and memoranda of understanding will be the same as prescribed in regard to the Fish account as set forth in this Guide.	4. Coordinate wildlife habitat surveys, studies, plans, and improvement projects with the Alaska Department of Fish and Game. Use the authorities for cooperative work under the Sikes Act.		
3. Desirable levels of wildlife will be determined primarily by the Alaska Department of Fish and Game and wildlife habitat will be determined primarily by the Forest Service, using factors such as land capability, other resource values, demand, relative abundance, competition with other species and coordination with other resources and needs.	5. Desirable levels of wildlife will be determined primarily by the Alaska Department of Fish and Game, and wildlife habitat will be determined primarily by the Forest Service, using factors such as: land capability, other resource values, demand, relative abundance, competition with other species, and coordination with other resources and needs. Forest Plans will state wildlife objectives in terms of animal population trends and in terms of amount and quality of habitat needed to meet objectives.		
			Area Guide policy adopted as Regional Guide policy in response to public comments.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>4. The Forest Service will emphasize management for indigenous wildlife species and natural habitat over other wildlife management approaches, except in cases where the Forest Service and the Alaska Department of Fish and Game agree upon other alternatives. Give special consideration to the habitat of sensitive, threatened and endangered species of plants, animals, and fish. Provide, as needed, for the identification, habitat management, and protection of these species.</p>	<p>6. Emphasize management for indigenous wildlife species and natural habitat over other wildlife management approaches, except in cases where the Forest Service and the Alaska Department of Fish and Game agree upon other alternatives. Give special consideration to the habitat of sensitive, threatened and endangered species of plants, animals, and fish. Provide, as needed, for the identification, habitat management, and protection of these species.</p>		Elaboration of Area Guide policy adopted as Regional Guide policy.
<p>5. The Forest Service designates as wildlife habitat, areas of land and water necessary for the maintenance of wildlife populations at the desirable levels established in Policy 3.</p>		<p>5. The Forest Service designates as wildlife habitat, areas of land and water necessary for the maintenance of wildlife populations at the desirable levels established in policy 3.</p>	Area guide policy retained as forest policy.
<p>6. Unless otherwise indicated, determinations necessitated by the policies in this section will be undertaken through the interdisciplinary team (IDT) process in full accordance with the policies and procedures for IDT's set forth in this Guide.</p>	<p>7. Implement policies through the interdisciplinary process:</p> <p>a. Recognize the capabilities and sensitivities of important wildlife habitat areas in land management planning.</p> <p>b. The Forest Service recognizes that, for many wildlife species, information on the impacts of land use activities on habitat and on factors determining the suitability of habitat for wildlife are incomplete. Identify these species jointly with the Alaska Department of Fish and Game.</p> <p>c. Provide the habitat management standards necessary to insure that viable population levels of all existing native vertebrate species of wildlife and fish on the Forests are maintained over time despite normal fluctuations in population numbers.</p> <p>d. Habitat management standards for selected species are, as appropriate, aimed at supporting populations above the visible population level.</p>	<p>6. Unless otherwise indicated, determinations necessitated by the policies in this section will be undertaken through the interdisciplinary planning team (IDT) process in full accordance with the policies and procedures for IDT's set forth in this Guide.</p> <p>a. Land Management Plan Phase</p> <p>(1) An IDT will assist in land allocation decisions by providing sufficient information to permit allocations which recognize the capabilities and sensitivities of important wildlife habitat areas. Of special importance will be identification of areas which warrant special designation as LUD 1, II, or III because of their relatively high vulnerability to development impacts on productive capacity, associated recreational opportunities or other factors.</p> <p>(2) In addition, the Forest Service recognizes that, for many wildlife species, information on the impacts of land use activities on habitat and on factors determining the suitability of habitat for wildlife are incomplete. During the development of the land management plan, the</p>	Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application. Reference to LUD's deleted because Chugach National Forest does not have LUD's.

Wildlife (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>Forest Service will identify jointly with the Alaska Department of Fish and Game those species for which land use activities should proceed with caution.</p>	<p>e. The Forest Service recognizes the possibility that alteration of wildlife habitat through a series of projects over an entire range of a species may result in cumulative impacts.</p>	<p>Forest Service will identify jointly with the Alaska Department of Fish and Game those species for which land use activities should proceed with caution.</p>	
<p>(3) The Forest Service recognizes the importance of wildlife habitat, and timber harvesting will be planned to protect or enhance that habitat. Habitat guides, which could protect or enhance the various species, will be jointly developed by the Forest Service and Alaska Department of Fish and Game. Existing information shall be utilized until such guides are prepared.</p>		<p>(3) The Forest Service recognizes the importance of wildlife habitat, and timber harvesting will be planned to protect or enhance that habitat. Habitat guides, which could protect or enhance the various species, will be jointly developed by the Forest Service and Alaska Department of Fish and Game. Existing information shall be utilized until such guides are prepared.</p>	
<p>An IDT will design impact assessment programs to be carried out concurrent with land use activities to supply the necessary data and information on the relationship between such activities and habitat requirements.</p>		<p>An IDT will design impact assessment programs to be carried out concurrent with land use activities to supply the necessary data and information on the relationship between such activities and habitat requirements.</p>	Area Guide policy retained as Forest policy.
<p>(4) The Forest Service further recognizes the possibility that alteration of wildlife habitat through a series of projects over an entire range of a species may result in cumulative or collective adverse impacts on that species which escape notice during, or cannot be adequately dealt with through, individual implementation plans. An IDT will provide assistance during the allocation phase to insure that this possibility is adequately protected against.</p>		<p>(4) The Forest Service further recognizes the possibility that alteration of wildlife habitat through a series of projects over an entire range of a species may result in cumulative or collective adverse impacts on that species which escape notice during, or cannot be adequately dealt with through, individual implementation plans. An IDT will provide assistance during the allocation phase to insure that this possibility is adequately protected against.</p>	
<p>b. At the prescriptive and implementation planning levels, the IDT will be utilized as described in the succeeding policies.</p>		<p>b. At the prescriptive and implementation planning levels, the IDT will be utilized as described in the succeeding policies.</p>	
<p>7. All proposals for land use (e.g., logging, hydroelectric projects, developed recreation facilities or transportation</p>		<p>7. All proposals for land use (e.g., logging, hydroelectric projects, developed recreation facilities or transportation</p>	Area Guide policy retained as Forest policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>corridors proposed by other agencies)^{1/} will require the completion of a prescriptive or implementation plan, with the participation of an IDT. The plan will specify: (1) appropriate Wildlife Habitat Management Units (WMU's) and (2) prescriptions necessary to meet the goals for wildlife habitat set forth in this section of the Guide. Mineral development activities require an operating plan that also involves the IDT process.</p> <p>a. The WMU will consist of all components of wildlife habitat meeting the definition in Policy 5 as identified by the IDT process. Other land use activities will not be excluded from WMU's provided they are consistent with the management goals for wildlife habitat.</p> <p>b. The IDT process will also develop localized management and protection prescriptions based upon the characteristics and sensitivities of the area. Participation in prescription development will be invited from the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The prescriptions will provide for protection and enhancement of sufficient winter and summer range, browse and food sources, protective cover and migration corridors, nesting, feeding and resting sites. Other requirements necessary to meet the management goal for wildlife habitat will be met over the long run in view of relationships between logging and other land use activities and wildlife habitat needs. The prescriptions will also address the relative need to preserve mature and old-growth forests; to insure sufficient</p>	<p>corridors proposed by other agencies)^{1/} will require the completion of a prescriptive or implementation plan, with the participation of an IDT. The plan will specify: (1) appropriate Wildlife Habitat Management Units (WMU's) and (2) prescriptions necessary to meet the goals for wildlife habitat set forth in this section of the Guide. Mineral development activities require an operating plan that also involves the IDT process.</p> <p>a. The WMU will consist of all components of wildlife habitat meeting the definition in Policy 5 as identified by the IDT process. Other land use activities will not be excluded from WMU's provided they are consistent with the management goals for wildlife habitat.</p> <p>b. The IDT process will also develop localized management and protection prescriptions based upon the characteristics and sensitivities of the area. Participation in prescription development will be invited from the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The prescriptions will provide for protection and enhancement of sufficient winter and summer range, browse and food sources, protective cover and migration corridors, nesting, feeding and resting sites. Other requirements necessary to meet the management goal for wildlife habitat will be met over the long run in view of relationships between logging and other land use activities and wildlife habitat needs. The prescriptions will also address the relative need to preserve mature and old-growth forests; to insure sufficient browse reproduction in second-growth stands; to</p>		
<p>^{1/} This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service constituency.</p>			

Area Guide policy retained as Forest policy.

Wildlife (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>browse reproduction in second-growth stands; to avoid population decreases below predetermined levels as a result of displacement during forest development; to recalculate rotation periods or other silvicultural practices based on wildlife habitat needs; and to specify the percentage of an area to be cut during a given entry.</p> <p>c. The prescriptions for all WHMU's will include the following unless more restrictive measures are prescribed by the IDT process:</p> <p>(1) Wildlife habitat requirements can be partially met through the size, shape, location and dispersal of cutting units, areas retained in natural conditions, silvicultural systems, and multiple entry harvesting.</p> <p>(2) Identification of existing or potential opportunities for viewing and photography.</p> <p>(3) Provision for insuring that a maximum number of snags are retained for wildlife use consistent with the objectives for particular species, aesthetic values and Federal Occupational Safety and Health Act standards.</p> <p>(4) Tracked vehicle and truck operations within waterfowl habitat, where permitted, shall be confined to constructed roads except in the case of beach salvage operations. Such activities shall be situated behind a timber screen where possible.</p>		<p>avoid population decreases below predetermined levels as a result of displacement during forest development; to recalculate rotation periods or other silvicultural practices based on wildlife habitat needs; and to specify the percentage of an area to be cut during a given entry.</p> <p>c. The prescriptions for all WHMU's will include the following unless more restrictive measures are prescribed by the IDT process:</p> <p>(1) Wildlife habitat requirements can be partially met through the size, shape, location and dispersal of cutting units, areas retained in natural conditions, silvicultural systems, and multiple entry harvesting.</p> <p>(2) Identification of existing or potential opportunities for viewing and photography.</p> <p>(3) Provision for insuring that a maximum number of snags are retained for wildlife use consistent with the objectives for particular species, aesthetic values and Federal Occupational Safety and Health Act standards.</p> <p>(4) Tracked vehicle and truck operations within waterfowl habitat, where permitted, shall be confined to constructed roads except in the case of beach salvage operations. Such activities shall be situated behind a timber screen where possible.</p>	
<p>8. Specific developments and activities such as log transfer points, ferry terminals and camps should be located outside WHMU's where desirable. If the IDT process determines, they may be permitted within an</p>		<p>8. Specific developments and activities such as log transfer points, ferry terminals and camps should be located outside WHMU's where desirable. If the IDT process determines, they may be permitted within an</p>	<p>Area Guide policy retained as Forest policy.</p>

Wildlife (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>WMMU without contravening management goals, they should be placed in areas where the least disturbance or interference with wildlife will result. Specific protective measures shall be developed by the IDT process for each development and activity.</p>		<p>least disturbance or interference with wildlife will result. Specific protective measures shall be developed by the IDT process for each development and activity.</p>	
<p>9. The national significance of the bald eagle dictates that its habitat will continue to be given special protection through specific Forest Service management measures developed in conjunction with the Fish and Wildlife Service. These include:</p> <ol style="list-style-type: none"> Maintaining the desired quality and quantity of eagle habitat, nest trees and perch trees; Assisting the Fish and Wildlife Service in conducting surveys and studies; Establishing an undisturbed wildlife habitat zone of 100 m (330 ft.) or more in radius around each eagle nest prior to any forest development activity in the vicinity. Local topography, timber type, windfirmness and other factors will determine the exact boundaries. The Forest Service, the Fish and Wildlife Service and the Alaska Department of Fish and Game will review the existing policies for bald eagle protection to determine their adequacy and any new measures necessary to carry out the provisions of the Act by the time the Land Management Plan is completed. 	<p>8. The national significance of the bald eagle dictates that its habitat will continue to be given special protection through specific Forest Service management measures developed in conjunction with the U.S. Fish and Wildlife Service. These include:</p> <ol style="list-style-type: none"> Maintaining the desired quality and quantity of eagle habitat, nest trees, and perch trees; Assisting the U.S. Fish and Wildlife Service in conducting surveys and studies; Establishing an undisturbed wildlife habitat zone of 100 meters (330 feet) or more in radius around each eagle nest tree prior to any Forest development activity in the vicinity. Local topography, timber type, windfirmness, and other factors will determine the exact boundaries. 		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>10. Users of National Forest lands will be advised of the potential dangers of bear-human confrontations. Procedures for the disposal of garbage and other attractive nuisances at developed areas will be formulated in detail and strictly enforced</p>		<p>10. Users of National Forest lands will be advised of the potential dangers of bear-human confrontations. Procedures for the disposal of garbage and other attractive nuisances at developed areas will be formulated in detail and strictly enforced</p>	<p>Area Guide policy retained as Forest policy.</p>

Wildlife (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>by Forest Service administrators. Logging camps and other developed sites are to be located away from areas of substantial bear density (including areas around salmon streams frequented by bears) to reduce chances of bear-human confrontations.</p>	<p>11. The Forest Service will maintain a continuous program for monitoring and assessment of the impacts of land use activities on wildlife in cooperation with appropriate State and Federal agencies in accordance with their areas of interest and expertise.</p>	<p>by Forest Service administrators. Logging camps and other developed sites are to be located away from areas of substantial bear density (including areas around salmon streams frequented by bears) to reduce chances of bear-human confrontations.</p>	<p>Area Guide policy modified in response to National Forest Management Act and adopted as Regional Guide policy.</p>
<p>9. Certain species shall be selected as indicators of the effects of management.</p> <p>Describe in Forest Plans the anticipated effect on the wildlife resource, the species selected for management and monitoring purposes, the reasons for selecting the species, the monitoring schedule, and the expected precision and accuracy of the monitoring process.</p> <p>Utilize the following criteria to select species as indicators of the effects of management, keeping in mind the need to restrict species to a practicable number:</p> <ul style="list-style-type: none"> a. Threatened or endangered species on Federal lists; b. Species identified in State lists of endangered or threatened species; c. Species for which the planning area comprises a majority of the species total Statewide, Regional, or National habitat; d. Species that represent or reflect environmental suitability for other species (true ecological indicators); e. Species having significant economic value. Normally these species are those commonly hunted or trapped, and those for which there is a relatively high demand (consumptive and nonconsumptive). <p>Forest Plans shall provide for diversity of plant and animal communities and tree</p>			

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	species consistent with the overall multiple-use objectives of the planning area.		
12. Where violations of contracts or permits or instances of damage or unforeseen problems occur, the policies and procedures set forth in Policy 9 in the Fish Account will apply.		12. Where violations of contracts or permits or instances of damage or unforeseen problems occur, the policies and procedures set forth in Policy 9 in the Fish Account will apply.	Area Guide policy retained as Forest policy.

Estuaries and Tidal Meadows

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. The policy on consultation and cooperation with the Alaska Department of Fish and Game, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service is the same as that prescribed for in the Fisheries Account of the Guide. However, in areas where other State and Federal agencies have overlapping resource management responsibilities (e.g., estuaries), the Forest Service will seek guidance and direction from those agencies, including the Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Corps of Engineers, National Marine Fisheries, U.S. Fish and Wildlife Service and others, and will execute plans and decisions in a manner consistent with the statutory responsibilities of these agencies.</p>	<p>1. Coordinate the planning and decision-making process with the Alaska Department of Fish and Game, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. In areas where agencies have overlapping resource management responsibilities, seek guidance and direction, and execute plans and decisions in a manner consistent with the statutory responsibilities of these agencies.</p>	<p>1. The policy on consultation and cooperation with the Alaska Department of Fish and Game, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service is the same as that prescribed for in the Fisheries Account of the Guide. However, in areas where other State and Federal agencies have overlapping resource management responsibilities (e.g., estuaries), the Forest Service will seek guidance and direction from those agencies, including the Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Corps of Engineers, National Marine Fisheries, U.S. Fish and Wildlife Service and others, and will execute plans and decisions in a manner consistent with the statutory responsibilities of these agencies.</p>	<p>Area Guide policy retained as Forest policy in response to public comments. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>2. Management decisions on activities within estuaries and wetlands that affect fish and wildlife habitat will be governed by the policies and procedures on Fish and Wildlife set forth in this Guide, provided, however, that the ecological role of intertidal and marine areas supporting fish, shellfish and wildlife populations will be fully recognized in calculating fish and wildlife habitat needs on National Forest land.</p>	<p>2. Recognize the ecological role of intertidal and marine areas in supporting fish, shellfish, and wildlife populations in management decisions affecting habitat.</p>	<p>2. Management decisions on activities within estuaries and wetlands that affect fish and wildlife habitat will be governed by the policies and procedures on Fish and Wildlife set forth in this Guide, provided, however, that the ecological role of intertidal and marine areas supporting fish, shellfish and wildlife populations will be fully recognized in calculating fish and wildlife habitat needs on National Forest land.</p>	<p>Area Guide policy retained as Forest policy in response to public comments. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>3. Unless otherwise indicated, determinations necessitated by the policies in this section will be made through the interdisciplinary (IDT) process in full accordance with the policies and procedures for IDT's set forth in this Guide. Where proposed activities involve estuaries and wetlands, the IDT process must be structured and implemented in a manner which insures that the management goal for estuaries and wetlands will be met. The IDT process will be employed during all phases of the planning process.</p>	<p>3. Unless otherwise indicated, determinations necessitated by the policies in this section will be made through the interdisciplinary (IDT) process in full accordance with the policies and procedures for IDT's set forth in this Guide. Where proposed activities involve estuaries and wetlands, the IDT process must be structured and implemented in a manner which insures that the management goal for estuaries and wetlands will be met. The IDT process will be employed during all phases of the planning process.</p>	<p>Area Guide policy retained as Forest policy in response to public comments.</p>	

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>a. An inventory of important estuarine and wetland areas will be made at the allocation level in cooperation with the Alaska Department of Fish and Game, National Marine Fisheries Service and the U.S. Fish and Wildlife Service and other agencies.</p> <p>Of special importance will be identification of areas which warrant designation as LUD 1, II or III because of their relatively high vulnerability to developmental impacts. Plans for managing individual estuaries and wetlands will be prepared at the implementation level. Included in these plans will be an evaluation of all factors influencing fish and wildlife habitat as well as other natural factors and values as they may be impacted by various land use activities. Because ease of access and other characteristics make estuaries and wetlands popular locations for various activities and developments that may substantially alter these areas, policies on the appropriateness of such activities and developments will also be determined at this time. Policies will be sufficient to meet the management goal.</p> <p>b. During the implementation phase, the LDT process will be utilized as described in the succeeding policies.</p>	<p>3. Prepare an interdisciplinary plan for all proposals for use (e.g., mining, logging, aquaculture, hydroelectric projects, developed recreation facilities). In the plan specify (1) appropriate Estuary Management Units (EMU's); and (2) formulation of prescriptions. (This does not include activities that are minor, lacking in measurable impact, and of insufficient impact to cause objection by any Forest Service Constituency.)</p>	<p>a. An inventory of important estuarine and wetland areas will be made at the allocation level in cooperation with the Alaska Department of Fish and Game, National Marine Fisheries Service and the U.S. Fish and Wildlife Service and other agencies.</p> <p>Of special importance will be identification of areas which warrant special designation because of their relatively high vulnerability to developmental impacts. Plans for managing individual estuaries and wetlands will be prepared at the implementation level. Included in these plans will be an evaluation of all factors influencing fish and wildlife habitat as well as other natural factors and values as they may be impacted by various land use activities. Because ease of access and other characteristics make estuaries and wetlands popular locations for various activities and developments that may substantially alter these areas, policies on the appropriateness of such activities and developments will also be determined at this time. Policies will be sufficient to meet the management goal.</p> <p>b. During the implementation phase, the LDT process will be utilized as described in the succeeding policies.</p>	<p>Area Guide policy retained as Forest policy in response to public comments. Reference to LUD's deleted because Chugach National Forest does not have LUD's.</p>
<p>4. All proposals for use¹ (e.g., mining, logging, aquaculture, hydroelectric projects, developed recreation facilities) will require the completion of an LDT plan. This plan will specify (1) appropriate Estuary and/or Wetland Management Units (E/WMUs) and (2) formulation of prescriptions necessary to meet the goal for Estuaries and Wetlands set forth in this section of the Guide.</p>	<p>3. Prepare an interdisciplinary plan for all proposals for use (e.g., mining, logging, aquaculture, hydroelectric projects, developed recreation facilities). In the plan specify (1) appropriate Estuary Management Units (EMU's); and (2) formulation of prescriptions. (This does not include activities that are minor, lacking in measurable impact, and of insufficient impact to cause objection by any Forest Service Constituency.)</p>	<p>4. All proposals for use¹ (e.g., mining, logging, aquaculture, hydroelectric projects, developed recreation facilities) will require the completion of an LDT plan. This plan will specify (1) appropriate Estuary and/or Wetland Management Units (E/WMUs) and (2) formulation of prescriptions necessary to meet the goal for Estuaries and Wetlands set forth in this section of the Guide.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application.</p>

¹This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service Constituency.

¹This does not include isolated activities which are minor, lacking in measurable impact and of insufficient import to cause objection by any Forest Service Constituency.

Estuaries and Tidal Meadows (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>a. An E/WMU will consist of all components of an estuary or wetland together with adjacent areas determined by the IDT process to be necessary for implementing management prescriptions that meet the management goal. An E/WMU will not exclude management activities provided they are consistent with the management goal for estuaries and wetlands.</p>	<p>An EMU includes components of an estuary and adjacent areas determined to be necessary for implementing management prescriptions. An EMU will not exclude management activities consistent with the goals for estuaries.</p>	<p>a. An E/WMU will consist of all components of an estuary or wetland together with adjacent areas determined by the IDT process to be necessary for implementing management prescriptions that meet the management goal. An E/WMU will not exclude management activities provided they are consistent with the management goal for estuaries and wetlands.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policy developed from Area Guide policy for Regional application.</p>
<p>b. Localized management and protection prescriptions that are based upon the characteristics and sensitivities of the area and which will meet management goals will be developed by the IDT process. Input used by the IDT will include all factors necessary with respect to establishment of Fish Habitat Management Units and Wildlife Habitat Management Units therein, together with recreational and other human usage patterns. In instances where State tide-lands and submerged lands are involved, land use activities by private operators are approved by the State and/or Corps of Engineers through the permit and/or lease process; prescriptions will provide that any application for a permit or lease must cover all proposed activities. All prescriptions relating to activities on estuaries and wetlands will include the measures prescribed below, unless more restrictive measures are prescribed in the IDT process:</p>		<p>b. Localized management and protection prescriptions that are based upon the characteristics and sensitivities of the area and which will meet management goals will be developed by the IDT process. Input used by the IDT will include all factors necessary with respect to establishment of Fish Habitat Management Units and Wildlife Habitat Management Units therein, together with recreational and other human usage patterns. In instances where State tide-lands and submerged lands are involved, land use activities by private operators are approved by the State and/or Corps of Engineers through the permit and/or lease process; prescriptions will provide that any application for a permit or lease must cover all proposed activities. All prescriptions relating to activities on estuaries and wetlands will include the measures prescribed below, unless more restrictive measures are prescribed in the IDT process:</p>	
<p>(1) Unavoidable activities that may have a disturbing or disrupting influence on fish and wildlife species or habitat during critical life history periods (e.g., nesting and feeding) will be scheduled for time periods when such influences will be minimal or nonexistent. Such times will be determined prior to the proposed activity in cooperation with the Alaska Department of Fish and Game and other agencies.</p>		<p>(1) Unavoidable activities that may have a disturbing or disrupting influence on fish and wildlife species or habitat during critical life history periods (e.g., nesting and feeding) will be scheduled for time periods when such influences will be minimal or nonexistent. Such times will be determined prior to the proposed activity in cooperation with the Alaska Department of Fish and Game and other agencies.</p>	

(2) Forest development activities within or adjacent to estuaries and wetlands will be avoided unless determined by the IDT process to be consistent with management goals. Permanent road systems may, through the planning process, incorporate provisions for user access and scenic turnouts. Where roads or other facilities are approved for location near estuaries, fills, sidcasting and waste materials, they must not encroach upon such areas unless recommended during the IDT process. As much undisturbed ground and cover as possible must be left between the activity or facility and the estuary or wetland to reduce or eliminate disturbance of fish, wildlife, or recreational values. The use of intertidal areas as a source of borrow will be limited to those areas and methods stipulated through the IDT process as being compatible with the character of the area and where the borrow source can be returned to a natural appearance subsequent to use.

(3) Forest development activities on grass flats and tide flats will be limited to those areas specifically selected during the IDT process and approved by the Forest Supervisor as being compatible with the character of the area and of minimal impact.

(4) A distance separating camps, cabins, and other structures from tidal flats used by aquatic and terrestrial life forms for feeding, nesting, or resting sufficient to avoid significant interference will be established by the IDT process. Structures shall be located far enough from spawning streams to avoid disturbance of fish.

(2) Forest development activities within or adjacent to estuaries and wetlands will be avoided unless determined by the IDT process to be consistent with management goals. Permanent road systems may, through the planning process, incorporate provisions for user and scenic turnouts. Where roads or other facilities are approved for location near estuaries, fills, sidcasting and waste materials, they must not encroach upon such areas unless recommended during the IDT process. As much undisturbed ground and cover as possible must be left between the activity or facility and the estuary or wetland to reduce or eliminate disturbance of fish, wildlife, or recreational values. The use of intertidal areas as a source of borrow will be limited to those areas and methods stipulated through the IDT process as being compatible with the character of the area and where the borrow source can be returned to a natural appearance subsequent to use.

(3) Forest development activities on grass flats and tide flats will be limited to those areas specifically selected during the IDT process and approved by the Forest Supervisor as being compatible with the character of the area and of minimal impact.

(4) A distance separating camps, cabins, and other structures from tidal flats used by aquatic and terrestrial life forms for feeding, nesting, or resting sufficient to avoid significant interference will be established by the IDT process. Structures shall be located far enough from spawning streams to avoid disturbance of fish.

Estuaries and Tidal Meadows (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>(5) Roads, buildings and all other facilities and operations not requiring direct water access will normally be located behind a zone of windfirm timber. However, the IDT may recommend otherwise if the character of the area would not be significantly impaired.</p> <p>(6) With respect to general types of developments (docks, landings, floats, boat ramps) requiring water access, the following are intended as selection criteria during the IDT process regarding the choice of sites:</p> <p>(a) Minimum distances between the sites and the mouths of intertidal channels of known anadromous fish streams sufficient to avoid significant interference will be established by the IDT process.</p> <p>(b) Minimum distances between the sites and tide flats or subtidal beds of aquatic vegetation will be specified during the IDT process to avoid significant impairment.</p> <p>(c) The filling of intertidal and subtidal areas will be restricted to those sites having the least value as habitat for marine organisms and vegetation.</p> <p>(d) Areas with established uses such as commercial and sport fishing, hunting and anchorages for commercial and recreational vessels will be avoided unless the IDT process determines that location of sites may be accomplished in a manner that is compatible with such uses.</p> <p>(7) The following are intended as selection criteria to assist the IDT process in the choice of locations for log transfer and storage sites in estuarine areas.</p>		<p>(5) Roads, buildings and all other facilities and operations not requiring direct water access will normally be located behind a zone of windfirm timber. However, the IDT may recommend otherwise if the character of the area would not be significantly impaired.</p> <p>(6) With respect to general types of developments (docks, landings, floats, boat ramps) requiring water access, the following are intended as selection criteria during the IDT process regarding the choice of sites:</p> <p>(a) Minimum distances between the sites and the mouths of intertidal channels of known anadromous fish streams sufficient to avoid significant interference will be established by the IDT process.</p> <p>(b) Minimum distances between the sites and tide flats or subtidal beds of aquatic vegetation will be specified during the IDT process to avoid significant impairment.</p> <p>(c) The filling of intertidal and subtidal areas will be restricted to those sites having the least value as habitat for marine organisms and vegetation.</p> <p>(d) Areas with established uses such as commercial and sport fishing, hunting and anchorages for commercial and recreational vessels will be avoided unless the IDT process determines that location of sites may be accomplished in a manner that is compatible with such uses.</p> <p>(7) The following are intended as selection criteria to assist the IDT process in the choice of locations for log transfer and storage sites in estuarine areas.</p>	Area Guide policy retained as Forest policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>(a) The number of active log transfer sites and storage areas in any given bay or bay complex will be minimized by selecting locations that will accommodate future logging without requiring additional transfer or storage sites.</p>		<p>(a) The number of active log transfer sites and storage areas in any given bay or bay complex will be minimized by selecting locations that will accommodate future logging without requiring additional transfer or storage sites.</p>	Area Guide policy retained as Forest policy.
<p>(b) The steepest submerged lands having the least productive intertidal and subtidal zones will be considered first during site selection. Slopes of 40 percent or more are desirable.</p>		<p>(b) The steepest submerged lands having the least productive intertidal and subtidal zones will be considered first during site selection. Slopes of 40 percent or more are desirable.</p>	
<p>(c) Log transfer sites along straits, channels and the shores of deep bays where currents may aid in dispersing debris will be considered first during site selection.</p>		<p>(c) Log transfer sites along straits, channels and the shores of deep bays where currents may aid in dispersing debris will be considered first during site selection.</p>	
<p>(d) Rafting and log storage areas will be in the deepest water possible with a minimum depth of 13 meters (40 feet) at mean lower low water. Further, logs or rafts must not be allowed to ground at any tide stage if there is a possibility of damage to bottom organisms. Timber purchasers should be encouraged to transport stored logs to their final destination as quickly as possible to reduce impacts associated with long-term storage in estuarine waters.</p>		<p>(d) Rafting and log storage areas will be in the deepest water possible with a minimum depth of 13 meters (40 feet) at mean lower low water. Further, logs or rafts must not be allowed to ground at any tide stage if there is a possibility of damage to bottom organisms. Timber purchasers should be encouraged to transport stored logs to their final destination as quickly as possible to reduce impacts associated with long-term storage in estuarine waters.</p>	
<p>(e) Sites in deep bays rather than in shallow bays should be considered first; bays without sills or other natural restrictions to tidal exchange should be selected. Log transfer sites should be located near the mouths of bays rather than at the heads of bays unless the environment at the mouth of the bay is of special significance.</p>		<p>(e) Sites in deep bays rather than in shallow bays should be considered first; bays without sills or other natural restrictions to tidal exchange should be selected. Log transfer sites should be located near the mouths of bays rather than at the heads of bays unless the environment at the mouth of the bay is of special significance.</p>	
<p>(f) With respect to any permit application to the Corps of Engineers for a log rafting or storage or transfer site, the Forest Service will provide its expertise on specific or alternative sites.</p>		<p>(f) With respect to any permit application to the Corps of Engineers for a log rafting or storage or transfer site, the Forest Service will provide its expertise on specific or alternative sites.</p>	

Estuaries and Tidal Meadows (cont'd)

Southeast Alaska Area Guide Policies	Regional Plan Policies	Forest Plan Policies	Comments
<p>5. a. The use of existing log storage and transfer sites not complying with the policies outlined in the Guide will be phased out. Termination of site use will coincide with current contract expiration or, in the case of long-term sales, at the beginning of the next subsequent five-year rate redetermination period. Alternative sites will be provided in accordance with the Guide.</p>	<p>4. Phase out the use of existing log storage and terminal transportation facilities not complying with these policies. Coordinate termination of site use with alternative sites.</p>	<p>5. a. The use of existing log storage and transfer sites not complying with the policies outlined in the Guide will be phased out. Termination of site use will coincide with current contract expiration or, in the case of long-term sales, at the beginning of the next subsequent five-year rate redetermination period. Alternative sites will be provided in accordance with the Guide.</p>	<p>Area Guide policy retained as Forest policy. Regional Guide policies developed from Area Guide policy for Regional application.</p>
<p>b. Where a nonconforming site and/or facility is considered for use during a subsequent contract or five-year operation period, an IDT study will be made to determine whether adverse impacts of relocating the nonconforming site exceed those resulting from continued use of the existing site. If the adverse impact of relocating a needed facility is judged to exceed that occurring at its present location, the facility will be allowed to remain in use unless the study indicates that management goals will not be met. In such cases, no further use of the facility will be allowed and an alternative site will be provided in accordance with Guide procedures.</p>	<p>5. Where a nonconforming site and/or facility is considered for use during a subsequent contract or five-year operation period, use an interdisciplinary process to determine whether adverse impacts of relocating the nonconforming site exceed those resulting from continued use of the existing site.</p>	<p>b. Where a nonconforming site and/or facility is considered for use during a subsequent contract or five-year operation period, an IDT study will be made to determine whether adverse impacts of relocating the nonconforming site exceed those resulting from continued use of the existing site. If the adverse impact of relocating a needed facility is judged to exceed that occurring at its present location, the facility will be allowed to remain in use unless the study indicates that management goals will not be met. In such cases, no further use of the facility will be allowed and an alternative site will be provided in accordance with Guide procedures.</p>	
<p>6. The policies and procedures with respect to violations and instances of damage in the Fish and Wildlife Accounts in this Guide will be applicable to estuaries and wetlands as well. Application of such policies and procedures will include instances of damage to recreational and aesthetic values as well as to fish and wildlife habitat.</p>		<p>6. The policies and procedures with respect to violations and instances of damage in the Fish and Wildlife Accounts in this Guide will be applicable to estuaries and wetlands as well. Application of such policies and procedures will include instances of damage to recreational and aesthetic values as well as to fish and wildlife habitat.</p>	<p>Area Guide policy retained as Forest policy.</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. Require utilization and optimum practical use of wood material, both in the woods and at the mill. Promote the use of wood for its highest value product commensurate with present and anticipated supply and demand. Improvements in utilization and demand. Improvements in utilization will be made through sale preparation, appraisals, contract administration, and dissemination of research information. Sale and utilization of dead, blown-down and other deteriorating timber will receive high priority.</p>	<p>1. Require utilization and optimum practical use of wood material. Promote the use of wood for its highest value product commensurate with present and anticipated supply and demand. Improvements in utilization will be made through sale preparation, appraisals, contract administration, and dissemination of research information. Sale and utilization of dead, blown-down and other deteriorating timber will receive high priority.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy. See Preferred Alternative in EIS - Utilization Standards.</p>
<p>2. Timber will be taken from National Forest System lands only where:</p> <p>a. soil, slope or other watershed conditions will not be irreversibly damaged.</p> <p>b. there is assurance that such lands can be adequately restocked within five years after cutting.</p>	<p>2. Management of National Forest System lands in the Alaska Region requires adherence to the specific management requirements contained as standards and guidelines in the National Forest Management Act regulations 36CFR219.27.</p>		<p>Area Guide policy was written prior to the National Forest Act regulations. While the intent of the Area Guide policy is the same as the regulations, it has been replaced by the Regional Guide policy which requires adherence to the regulations. A cross reference between the Area Guide policy and the National Forest Management Regulations is provided:</p>
<p>c. protection is provided for streams, streambanks, shorelines, lakes, wetlands and other bodies of water from detrimental changes in water temperatures, blockages of water courses and deposits of sediment where logging is likely to seriously and adversely affect water conditions and fish habitat.</p>			<p>Area Guide policy 2a is contained in 36CFR 219.27(b)(5).</p> <p>Area Guide policy 2b is contained in 36CFR 219.27(c)(3).</p> <p>Area Guide policy 2c is contained in 36CFR 219.27(a)(4).</p>
<p>d. the logging methods used are not selected primarily because they will give the greatest dollar return or the greatest unit output of timber.</p>			<p>Area Guide policy 2d is contained in 36CFR 219.27(b)(3).</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>3. Clearcutting and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method only where:</p> <p>a. for clearcutting, it is determined to be the optimum, and for other such cuts, it is determined to be appropriate to meet the objectives and requirements of the relevant land management plan.</p>	<p>3. Even-aged harvest cutting methods are prescribed for all species except where uneven-aged management is needed to meet other resource objectives. Clearcutting to regenerate an even-aged stand will be used as a cutting method only where such practice is determined to be optimum to meet the objectives and requirements of the Forest Plan, and can be carried out in a manner consistent with the interdisciplinary process for the protection of soil, water, fish and wildlife, recreation, visual resources, and the regeneration of the timber resource.</p> <p>Management prescriptions will not be chosen primarily because they will yield the greatest dollar return or the greatest amount of timber, although these factors will be considered.</p>	<p>Area Guide policy replaced by Regional Guide policy.</p> <p>NFMA Regulation 36CFR219.9(a)(5)(1). Prescribe according to geographic areas, Forest types or other suitable classifications, appropriate systems of silviculture to be used within the Region.</p> <p>See Preferred Alternative in EIS - Harvest Cutting Methods</p>	<p>Area Guide policy contained in National Forest Management Act regulations 36CFR219.27(a)(7).</p> <p>Area Guide policy contained in National Forest Management Act regulations 36CFR219.27(d)(1). Also see Regional Guide policy #14.</p>

Detailed refinement of silvicultural standards, guidelines, and regeneration cutting methods are contained in Regional Guide, Chapter 3, Timber Element.

b. the interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering and economic impacts on each sale to be advertised have been assessed, as well as the consistency of the sale with the multiple-use of the general area.

c. cutting blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain.

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d. there is established a maximum size limit of 160 acres to be cut at one place and time. The established limit may be exceeded only after appropriate public notice and review by the responsible Forest Service officer one level above the Forest Service officer who normally would approve the harvest proposal. Such limits will not apply to the size of areas cut as a result of natural catastrophic conditions such as fire, insect and disease attack, or wind-storm.

d. NFMA Regulations provide that 100 acres is the maximum size of created openings to be allowed for the hemlock-Sitka spruce forest type of coastal Alaska unless excepted under specific conditions. The more pure stands of both species, the cedar type, the Chugach white spruce, and coastal hardwoods type will also be governed by the 100-acre limit.

Recognizing that harvest units must be designed to accomplish management goals, created openings may be larger where larger units will produce a more desirable contribution of benefits.

Factors to be considered to determine when a larger size may be permitted are:

1. Topography
2. Relationship of Units to Other Natural or Artificial Openings and Proximity of Units
3. Coordination and Consistency with Adjacent Management Areas
4. Effect on Water Quality and Quantity
5. Visual Absorption Capacity
6. Effect on Wildlife and Fish Habitat
7. Regeneration Requirements for Desirable Tree Species Based Upon Latest Research
8. Transportation and Harvesting System Requirements
9. Natural and Biological Hazards to the Survival of Residual Trees and Surrounding Stands
10. Relative Total Costs of Preparation, Logging and Administration of Harvest Cuts

Area Guide policy replaced by Regional Guide policy. NFMA 36CFR219.27(d)(2) prescribes the maximum size of tree openings created by the application of even-aged management. See Preferred Alternative in EIS - Maximum Size of Created Openings.

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Where it is determined by an interdisciplinary process that exceptions to the size limitation are warranted, the actual size limitation of openings may be up to 100 percent greater for factor 9 and up to 50 percent greater for all other conditions with the approval of the Forest supervisor.

Forest Supervisors will identify the particular conditions under which the larger size is warranted and explain the benefits to be gained.

Exceptions to the 100 acre size limit in excess of 50 percent greater, (100 percent greater for factor 9), are permitted on an individual timber sale basis after 60 days public notice and review and approval by the Regional Forester.

The established limits and exceptions do not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm.

e. clearcuts will be carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation and aesthetic resources and the regeneration of the timber resource.

f. stands designated for clearcutting will have generally reached the culmination of mean annual increment of growth.

g. cutting units are located so timber stands can be logged without creating inoperable areas or creating areas where future logging will destroy needed regeneration established after an earlier removal. Unit spacing and subsequent entries will be done on the basis of total area planning by compartment.

f. The final harvest of even-aged stands will not be scheduled until the stand approaches culmination of mean annual increments (CMAI) of growth.

g. Clearcutting and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method only where cutting units are located so timber stands can be logged without creating islands of timber that cannot be economically harvested in the future or without creating areas where future logging will destroy regeneration established following an earlier regeneration cutting.

Area Guide policy contained in National Forest Management Act regulations 36CFR219.27(c)(6).

Area Guide policy replaced by Regional Guide policy with additional direction in NFMA Regulation 36CFR219.16(a)(2)(iii).

Area Guide policy replaced by Regional Guide Policy. See Preferred Alternative in GIS - Appropriate Harvest Cutting Methods

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>4. Timber will usually be cut on the following schedule of priorities: deteriorating stands, incompletely stocked stands and large stands being managed for age class diversity. Generally, sites in each category having the highest potential productivity should be cut first.</p>	<p>4. Harvest scheduling will consider priorities for: deteriorating stands, incompletely stocked stands, and stands which have achieved their productive potential. Scheduling will also consider the goals and objectives of the Forest plan and the most efficient way of achieving them.</p>		<p>Area Guide policy replaced by Regional Guide policy. See Preferred Alternative in EIS - Utilization Standards.</p>
<p>5. Sale layouts will include provisions for the protection and enhancement of fish and wildlife resources and habitat as described elsewhere in the Guide.</p>			<p>Area Guide policy contained in Regional Guide policy #14.</p>
<p>6. Sale layouts, where feasible, will include a portion of marginal or low-volume timber stands.</p>	<p>5. Sale layouts must include a portion of marginal or low-volume timber stands if they are included within the boundaries of the sale area.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy. A portion of the marginal stand component is included in the Tongass Land Management Plan yield calculations.</p>
<p>7. The most efficient timber harvesting and extraction systems will be utilized, consistent with prescriptions and policies for other resources. Systems will not be selected primarily because they give the greatest dollar return or the greatest unit output of timber.</p>			<p>Area Guide policy contained in National Forest Management Act regulations and Regional Guide policy #3. See EIS - Alternative - Appropriate Harvest Cutting Methods.</p>
<p>8. The Forest Service will continue the program to salvage beach logs in cooperation with the State of Alaska.</p>	<p>6. The Forest Service will continue the program to salvage beach logs in cooperation with the State of Alaska.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>9. Artificial reforestation and timber stand improvement projects having benefits to other resources shall receive priority over those benefiting only one resource. Examples would be precommercial thinning in winter deer range and reforestation of areas having scenic value.</p>	<p>7. Schedule artificial reforestation and timber stand improvement projects having benefits to other resources before those benefiting only one resource. For example, give priority to precommercial thinning in winter deer range and reforestation of areas having scenic value.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy; see Preferred Alternative in EIS - Management Intensity.</p>

Timber (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>10. Seeding or planting shall be used to reforest areas on which natural regeneration has not occurred within four years or where accelerated regeneration is desired. Genetically improved seed trees will be used as they become available.</p>	<p>8. Seeding or planting shall be used to reforest areas on which natural regeneration has not occurred or where accelerated regeneration is desired. Genetically improved seed trees will be used as they become available.</p> <p>Examine all National Forest System lands treated after the first and third growing seasons. This requirement will be handled in the following way:</p> <ol style="list-style-type: none"> Examine artificial seeding or planting treatments one and three years after treatment. No first year surveys are required if the silvicultural prescription anticipates natural regeneration. Stands will be certified as stocked if the third year survey indicates that the area meets stocking standards. Schedule another survey not later than seven growing seasons after harvest if the third year survey indicates the area is very likely to be stocked but more time is required to make this determination. Prescribe artificial regeneration if the third year survey indicates that natural regeneration is highly unlikely. Conduct timber stand improvement project surveys as part of project inspections or within one year of completion. For most projects, no third year examination will be completed. 		<p>Area Guide policy replaced by Regional Guide policy. National Forest Management Act Regulation 36CFR219.27(c)(3). Providing that when trees are harvested to achieve timber production objectives, harvest will be in such a way as to assure that stands can be adequately restocked within five years after final harvest. See Preferred Alternative in EIS - Management Intensity.</p>

<p>11. Forest fertilization shall be tested, utilizing research or administrative studies of the soils and the climatic and topographic conditions of the site, prior to being used on an operational basis.</p>	<p>9. Forest fertilization may be used on soils determined to have insufficient nutrient status to allow the successful establishment of a conifer cover within five years.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy. See Preferred Alternative in EIS - Management Intensity.</p>
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Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>12. Frequency of timber sale inspections will be determined by the complexity of the timber sale and operator performance with the objective being to insure full contract compliance.</p>	<p>10. Frequency of timber sale inspections will be determined by the complexity of the timber sale and operator performance, with the objective being to insure full contract compliance.</p>		Area Guide policy adopted as Regional Guide policy.
<p>13. Where compatible with environmental protection objectives, private enterprise will be encouraged to utilize timber resources. The Forest Service will plan sale offerings to encourage competitive bidding and in a range of sizes and species that provides opportunities for small business enterprises. A fair share of timber will be set aside for small business operators.</p>	<p>11. Private enterprise will be encouraged to utilize timber resources. The Forest Service will plan sale offerings to encourage competitive bidding in a range of sizes and species that provide opportunities for small business enterprises. A fair share of timber will be set aside for small business operators.</p>		Area Guide policy modified for Regional Guide policy.
<p>14. Special attention will be given to logging practices that encourage diversity of wildlife habitat; for example, small clearcuts and other silvicultural techniques may be used to increase browse production in key winter habitat.</p>	<p>12. Special attention will be given to logging practices that encourage diversity of wildlife habitat, for example, small clearcuts and other silvicultural techniques may be used to increase browse production in key winter habitat.</p>		Area Guide policy adopted as Regional Guide policy. See Preferred Alternative in EIS - Harvest Cutting Methods.
<p>15. Throughout the life of each project, an IDT will monitor the project area and operation to assess the impacts of all management activities. The IDT will evaluate the adequacy of the management measures taken and will recommend improvements or changes to be incorporated in planning future activities.</p>	<p>13. Each project will be monitored to evaluate the adequacy of management practices. Information collected in this process will be used to recommend improvements or changes in the planning of future activities.</p>		Regional Guide policy replaces Area Guide policy. Expands on National Forest Management Act regulations.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policy	Comments
No Area Guide Policies	<p>14. When openings are created in the forest by the application of even-aged management, the openings will be shaped and blended with the natural terrain to achieve aesthetic quality and wildlife habitat objectives to the extent practicable. Openings will be located to achieve the desired combination of multiple objectives. Distribution of openings over time will conform to a total compartment multi-entry layout plan and be scheduled taking into consideration the assumptions used in the analytical allocation model. Multi-entry layout plan must consider all lands including lands under other ownerships. Assumptions used for plan amendments or revisions should review activities already scheduled.</p> <p>Detailed refinements of this policy are displayed in Chapter 3 Timber Element.</p>		<p>NFMA Regulation 36CFR 219.27(d)(1) provide for dispersal and size variation of tree openings created by even-aged management.</p>
No Area Guide Policies	<p>15. Minimum stocking levels will be based on spacing, distribution, and stand management objectives rather than the number of trees per acre in accordance with regeneration stocking guides contained in Forest Service Handbook 2409.26d, Region 10, Silvicultural Examination and Prescription Handbook.</p> <p>Created openings will be adequately stocked with desirable tree species which are approximately five feet in height on National Forests in coastal Alaska, before the area will no longer be considered an opening for the purposes of limitations on scheduling, locations, and size of additional created openings on National Forest System land.</p> <p>The basis for this determination will be the third year silvicultural survey.</p> <p>Forest Supervisors may adjust height and density requirements for specific resource management considerations, e.g., wildlife habitat and visual quality, to provide a state of vegetation that meets management prescription objectives.</p>		<p>NFMA Regulation 36CFR 219.27(d)(1) define the state of vegetation that will be reached before a cutover area is no longer considered an opening is discussed in the EIS.</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
No Area Guide Policies	<p>16. Implement new technologies leading to the increased utilization of wood products on Alaska National Forests.</p> <p>Achieve opportunities to increase timber yields on National Forest System lands in Alaska. Continue management practices such as planting, release, and weeding as needed and insect and disease control.</p> <p>Maintain the timber supply from the Tongass National Forest to dependent industry at a rate of 4.5 billion board feet per decade to sustain employment levels.</p> <p>Achieve RPA targets on the Tongass National Forest with investments in advanced road- ing, precommercial thinning, and advanced logging systems layout and development.</p>		<p>NFMA Regulation 36CFR 219.9(a)(5)(iii) defining management intensity to be used in determining harvest levels for the Region is discussed in EIS. [Check]</p> <p>NFMA Regulation 36CFR 219.14 dropped all reference to a particular growth standard. As now stated, the economic suitability test is defined in 219.14(c) and (d) and depends on the objectives of a particular alternative.</p>

Minerals and Geology

Southwest Alaska Area Guide Policies	Regional Guide Policies	Comments
<p>1. Require prospectors and claimants to comply with Federal and State mining and leasing laws, as well as National Forest mining regulations.</p>	<p>1. Require prospectors and claimants to comply with Federal and State mining and leasing laws, as well as National Forest mining regulations.</p>	<p>Area Guide policy adopted as Regional Guide policy for regional application.</p>
<p>2. Operating plans required under the National Forest mining regulations will receive prompt evaluation through the IDT process and action by appropriate Forest Service personnel.</p>	<p>2. Operating plans required under the National Forest mining regulations will receive prompt evaluation through the IDT process and action by appropriate Forest Service personnel.</p>	<p>Area Guide policy adopted as Regional Guide policy for regional application.</p>
<p>3. An environmental analysis report will be prepared using the IDT process for proposed actions where significant impacts on other resources are anticipated.</p>	<p>3. Prepare an environmental assessment for all operating plans.</p>	<p>Area Guide policy changed to reflect current term "environmental assessment." Adopted as Regional Guide policy.</p>
<p>4. Where the environmental analysis indicates significant impacts may occur, an environmental impact statement will precede issuance of permits or the approval of an operating plan.</p>	<p>4. Where the environmental analysis indicates significant impacts may occur, prepare an environmental impact statement to precede issuance of permits or the approval of an operating plan.</p>	<p>Area Guide policy adopted as Regional Guide policy for regional application.</p>
<p>5. If significant surface disturbance is anticipated, a reclamation plan will be prepared.</p>	<p>5. If significant surface disturbance is anticipated, a reclamation plan will be prepared.</p>	<p>Area Guide policy retained as Forest policy.</p>
<p>6. Bonds will be required in all cases where significant surface disturbance is anticipated to ensure adequate reclamation measures are provided.</p>	<p>5. Bonds will be required in all cases where significant surface disturbance is anticipated to ensure adequate reclamation measures are provided.</p>	<p>Area Guide policy adopted as Regional Guide policy for regional application.</p>
<p>7. The Forest Service assures prospectors and claimants right of ingress and egress granted under the General Mining Law of 1872 and the National Forest mining regulations.</p>	<p>6. The Forest Service assures prospectors and claimants right of ingress and egress granted under the General Mining Law of 1872, the Alaska Lands Act of 1980, the National Forest mining regulations, and other applicable statutes.</p>	<p>Area Guide policy changed to incorporate the Alaska Lands Act and other legislation, and adopted as Regional Guide policy.</p>

Minerals and Geology (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>8. Mineral materials permits will be granted for extraction of sand, gravel, and rock when such resources are not reasonably available on private land, and when it is consistent with the land-use plan and adequate environmental protection measures can be taken.</p>	<p>7. Mineral materials permits will be granted for extraction of sand, gravel, and rock when such resources are not reasonably available on private land, when it is consistent with the land-use plan, and when adequate environmental protection measures can be taken.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>9. Where the opportunity exists, and in cooperation with the Alaska Department of Fish and Game, borrow pits will be designed and excavated to facilitate their conversion to salmon rearing ponds.</p>	<p>8. Where the opportunity exists, and in cooperation with the Alaska Department of Fish and Game, borrow pits will be designed and excavated to facilitate their conversion to salmon rearing ponds.</p>		<p>Area Guide Policy adopted as Regional Guide policy.</p>
<p>No Area Guide policy</p>	<p>9. Encourage the exploration, development, and extraction of minerals and energy resources.</p>		<p>New policy to incorporate national direction.</p>

Recreation

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
1. Identify, designate, and manage the recreational resource of the Tongass National Forest for the greatest public well-being.	1. Identify, designate, and manage the recreational resource of the National Forest for the greatest public benefit considering national, Regional, and local needs.		Area Guide policy changed for Regional application and adopted as Regional Guide policy.
2. Establish criteria for determining the relative quality of lands capable of providing recreational experiences of the same class (see Appendix for descriptions of recreation classes).	2. Provide a broad spectrum of recreation opportunities in accord with identified needs and demands. Use the Recreation Opportunity Spectrum (ROS) framework to inventory, provide planning input, manage, and monitor recreation opportunity. Use recreation improvements to facilitate dispersed recreation.		Area Guide policy was direction for preparation of the Tongass Land Management Plan. The Regional Guide policy covers the same topic but is Regional in scope and incorporates current Forest Service national direction for planning for recreation (ROS).
3. Recreation classes (A and B) that receive high-quality ratings will be priority candidates for formal classification during the Tongass management planning process.	3. Use recreation opportunities identified through the Recreation Opportunity Spectrum (ROS) inventory in Forest Plans. Give primary consideration to those recreation opportunities now being actively utilized by the public for recreation pursuits. Retain other identified opportunities to the extent possible.		Area Guide policy was direction for preparation of the Tongass Land Management Plan. The Regional Guide policy covers the same topic but is Regional in scope and incorporates the recreation opportunity spectrum which is current national direction for recreation planning.
4. Establish visual quality objectives (see Glossary) for the visual resource as part of the IDT process during the prescription phase of planning. These objectives are based upon an inventory and evaluation of the physical characteristics of the landscape, existing use patterns, and recreation opportunity demands.	4. Inventory and evaluate the visual resource as an integrated part of the Forest planning process addressing both the landscape's visual attractiveness and the public's visual expectations. Assign adopted visual quality objectives (VQO's) through the Forest Land Management Plan process to direct management practices for all definitive land areas.		Area Guide policy modified to reflect current National Forest Service direction in response to the National Forest Management Act. Modified policy adopted as Regional Guide policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>5. Enter into cooperative agreements with the State, local agencies, Native Corporations and other Federal agencies to aid in providing a balanced spectrum of recreational opportunities and developments.</p>	<p>5. Enter into cooperative ventures with the State (i.e., State Comprehensive Outdoor Recreation Plan), local groups, Native Corporations, and other Federal agencies to aid in providing a balanced spectrum of recreation opportunities and to minimize unwarranted duplication of effort.</p>		<p>Modification of Area Guide policy adopted as Regional Guide policy for regional application.</p>
<p>6. Direct private or commercial recreational developments to private lands to the extent possible. Commercial recreational developments will continue to be permitted on National Forest lands where, consistent with land management plans, there is a demonstrated public need met and benefit derived from such services and no private lands are available or suitable for development.</p>	<p>6. Direct private or commercial recreational developments to private lands to the extent possible. Commercial recreational developments will continue to be permitted on National Forest lands where, consistent with land management plans, there is a demonstrated public need met and benefit derived from such services and no private lands are available or suitable for development.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>7. Incorporate in the Tongass Land Management Plan proposals for recreational classification that include significant portions of representative vegetative and landform types present in Southeast Alaska.</p>	<p>7. Incorporate, in Forest Plans, proposals for recreational classifications that include significant portions of representative vegetative and landform types.</p>		<p>Tongass changed to Forest and Area Guide policy adopted as Regional Guide policy.</p>
<p>8. Include in the Tongass Land Management Plan proposals for incorporation in the wild and scenic river system and national trails system representative rivers and trails using criteria outlined in the respective acts.</p>	<p>8. Designate, as part of the national recreation trail system, those land or water-based trails that have significant recreation values.</p>		<p>Area Guide policy was specific direction for the Tongass Land Management Plan. The Alaska Lands Act addressed wild and scenic rivers for Alaska. The Regional Guide policy addresses natural recreation trails on a Regional level.</p>
<p>9. Identify and protect areas that possess unusual environmental, educational, recreational, and scientific values so that these special values are available for public study, use, or enjoyment. Particular attention will be given to those areas of national or international significance.</p>	<p>9. Identify and protect areas that possess unusual environmental, educational, recreational, and scientific values for public study, use or enjoyment, lake and stream systems suitable for backpack, raft and canoe trips, and rivers suitable for extended trips. Particular attention will be given to those areas of national or international significance.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy for Regional application. (Also see Regional Guide policy under the Lands Element.)</p>

Recreation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
10. Provide for off-road vehicle use prescriptions at the allocation and prescription planning level.	10. Include off-road vehicle use in Forest land management plans and implement off-road vehicle use to minimize adverse effects on the land and resources, promote public safety, and minimize conflicts with other uses of Alaska National Forest lands. Classify areas and trails as to whether this use is permitted in Forest plans. For subsistence purposes, snowmobiles, motorboats, and other means of surface transportation are permitted subject to reasonable restrictions necessary to protect fish, wildlife, soil, and water.		Area Guide policy rewritten for Regional application in response to the National Forest Management Act and the Alaska Lands Act.
11. Recognize and protect lands having special values such as boat anchorages, small boat routes, ferry and tour ship routes, recreation beaches, popular deer hunting areas, wildlife observation areas, sportfishing streams and trails as part of the Tongass land management planning process.	11. Recognize and protect lands having special values such as boat anchorages, small boat routes, ferry and tour ship routes, recreation beaches, popular deer hunting areas, wildlife observation areas, sport-fishing streams, and trails as part of the land management planning process.		Word Tongass deleted and Area Guide policy adopted as Regional Guide policy.
12. Maintain the quality and diversity of recreational experiences and opportunities presently available on the Tongass Forest by proposing a formally designated system of roadless recreational and wilderness areas.	12. Maintain the quality and diversity of recreational experiences and opportunities presently available on the Chugach National Forest by proposing a formally designated system of roadless recreational and wilderness areas.		The Alaska Lands Act designated wilderness for the Tongass National Forest. Wilderness studies are being conducted for the Chugach National Forest as part of the Chugach land management planning process.
13. Locate and establish roads and trails necessary to provide reasonable access to recreational attractions and to simple, dispersed campsites where planning indicates this is an objective. Related needs may include anchor buoys or floats and recreation cabins.	13. Promote the design, operation, and maintenance of marine-related facilities. A cooperative effort with others, including State and other agencies, is required. Locate and establish roads and trails necessary to provide reasonable access to recreational attractions and to simple, dispersed campsites where planning indicates this is an objective.		Clarification of Area Guide policy adopted as Regional Guide policy.
14. Develop, with public involvement, a priority list of maintenance or improvements.			Area Guide policy retained to guide management of the Tongass National Forest.

Recreation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
15. Use volunteers to the fullest extent possible to increase the level of maintenance.	14. Use volunteers and cooperative manpower programs to the fullest extent possible to increase the level of maintenance.		Clarification of Area Guide policy adopted as Regional Guide policy.
16. Supplement National Forest management activities with interpretive programs and media to enhance understanding of resources, their management, and conservation.	15. Use interpretive services to promote energy and economic efficiency and to inform residents and visitors of recreational opportunities and management practices within the National Forest System by: a. Reviewing and managing existing facilities to ensure that only those facilities that can provide quality, energy, and economically efficient service are retained or expanded; b. Assisting the public in utilization of safe, enjoyable, energy-efficient recreation opportunities; c. Assisting future management by increasing public understanding of complex issues involved in managing a working forest.		Area Guide policy modified in response to RPA for Regional Guide policy.
17. Work with government and private interests to develop specific means and programs including, where feasible, naturalist personnel to serve the interests of cruise ship and State ferry travelers for the purpose of providing enrichment experience as to the nature, use, and values of the natural resources and cultural heritage of Alaska.	16. Work with government and private interests to develop specific means and programs including, where feasible, naturalist personnel to serve the interests of cruise ship and State ferry travelers for the purpose of providing enrichment experience as to the nature, use, and values of the natural resources and cultural heritage of Alaska. Develop audio-visual and other programs that emphasize cost-effectiveness and reduce emphasis on the need for staffing or high-cost facilities.		Clarification of Area Guide policy adopted as Regional Guide policy.
18. Work with people in the law enforcement, legal, social, and educational fields to reduce vandalism in recreation areas.			Area Guide policy deleted. Included in Protection Element.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>19. Ensure that a complete inventory and systematic evaluation is made of the recreation opportunity supply, use patterns, and demand trends during the allocation and prescription phases of planning. Where the study plan or scale of the project indicates a need, additional detail recreation inventory work with site-specific recommendations will be done as part of the interdisciplinary planning team process during the implementation stage of planning.</p>		<p>19. Ensure that a complete inventory and systematic evaluation is made of the recreation opportunity supply, use patterns and demand trends during the allocation and prescription phases of planning. Where the study plan or scale of the project indicates a need, additional detailed recreation inventory work with site-specific recommendations will be done as part of the interdisciplinary team process during the implementation stage of planning.</p>	Area Guide policy retained as Forest policy.
<p>20. Include IDT specialists in the design and location of roads, utilities, buildings and other associated facilities and development actions to reflect recreation and visual needs and help assure a quality product.</p>	<p>17. Schedule resource development activities in areas that will not adversely impact currently utilized and other important recreation and visual resources to the extent possible.</p>		Clarification of Area Guide policy adopted as Regional Guide policy.
	<p>18. In areas where Forest Plans have indicated that primary emphasis is on commodity production, minimize adverse impacts on the recreation and visual resources of the area. Provide recreation opportunities where feasible and compatible with other resource objectives. Protect important visual values without significant decrease in commodity outputs by full utilization of implementation measures available to meet adopted visual quality objectives established as a result of the Forest planning process.</p>		Clarification of Area Guide Policy 20 adopted as Regional Guide policy.
<p>21. Work with research agencies on programs for improving our knowledge base involving recreation supply and demand. These programs must relate to the ability of the land to meet the needs of people now and in the future and involve economic and social values as well as the existing recreation opportunity supply.</p>	<p>19. Work with other agencies on programs for improving the knowledge base involving recreation supply and demand.</p>	<p>21. Work with research agencies on programs for improving our knowledge base involving recreation supply and demand. These programs must relate to the ability of the land to meet the needs of people now and in the future and involve economic and social values as well as the existing recreation opportunity supply.</p>	Area Guide policy retained as Forest Plan policy. Regional Guide policy developed from Area Guide policy for Regional applications.

Recreation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	20. Locate new recreation facilities to utilize public transportation systems and facilitate energy-efficient forms of recreation uses.		New Regional Guide policy developed to respond to RPA.
No Area Guide Policies	21. Implement management actions that result in increasing receipts to recover more of the operation and maintenance costs of charge sites and reduce competition with the private sector.		New Regional Guide policy developed to respond to RPA.
No Area Guide Policies	22. Recognize that recreation use radiates from communities and service centers; encourage private land and capital to develop services and accommodations to meet demands. Complement this development by facilitating the use of dispersed recreation opportunities in a radiating pattern from these service centers.		New Regional Guide policy developed to respond to RPA.
No Area Guide Policies	23. Implement "no trace" woodmanship and "pack-it-in/pack-it-out" programs for all dispersed recreation visitors.		New Regional Guide policy. Same as policy 16 in Wilderness element. Incorporated in Recreation element in response to public comments.

Wilderness

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
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1. A cross section of significant vegetative and landform types present in Southeast Alaska will be identified and proposed for wilderness study. Lands allocated to wilderness study (LUD I) will include, but not be limited to, the current wilderness study areas.

2. Prior to completion of the Tongass Forest Plan, an environmental impact statement will be prepared for all activities that could change the wilderness characteristics of roadless areas. Each statement prepared will include realistic wilderness alternatives.

3. Where aircraft access is an established use, Forest Service recommendations for its continued use with proposed wilderness areas will be made on a case-by-case basis during the wilderness study process. Motorboat use or float plane use on salt-water is not under the jurisdiction of the Forest Service.

4. Management plans will be prepared for any future classified wilderness areas. Such plans will describe what management actions are to be taken, including how wilderness use is to be monitored and regulated.

Area Guide policies are replaced by Regional Guide policies below:

The Area Guide policies were developed to guide preparation of the Tongass Land Management Plan and Management of "any future classified Wilderness Areas." The Alaska Lands Act designated wilderness areas on the Tongass National Forest and provided for Wilderness study on the Chugach National Forest. The 1964 Wilderness Act has the flexibility to allow existing uses to continue in an area if compatible with wilderness values. In addition, the Alaska Lands Act specifically authorizes a number of uses to minimize impacts on current users of the land and to provide for facilities necessary for certain types of economic development. These special provisions of the Alaska Lands Act are covered in the policy provisions of this section. The policies from the 1964 Wilderness Act as stated in Forest Service Manual 2320 apply except as amended by these Alaska Lands Act policies. Any alternative use restrictions for individual wilderness areas will be made through the Forest land management planning process and must have public involvement and support.

1. Management prescriptions for individual wilderness areas will be developed through the Forest planning process. Restrictions on public uses may be made in these plans with public involvement and support.

2. Reasonable conditions may be imposed on any use, if necessary, to protect soil, water, or other resources from damage.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
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3. Airplanes, motorboats, and snowmachines (during periods of adequate snow cover) and nonmotorized surface transportation methods will be allowed within a wilderness. No overall prohibitions will be imposed on these uses. However, motorized use may be prohibited or restricted in designated areas through the planning process; formal public hearings will be held on any such proposal in addition to the public involvement which develops the proposal.

4. Adequate and feasible access is given to owners of land, subsurface rights, valid mining claims or other valid occupancies which are within or effectively surrounded by a wilderness area.

5. Hunting, fishing, and trapping will continue subject to State regulations.

6. Timber will not be cut, sold, or harvested as a part of the regular timber sale program. The following types of uses may be permitted if done in a manner that minimizes impacts on the wilderness (Standards and guidelines on permitted uses of wilderness will be developed through the planning process in 1 above):

a. Salvage of beach logs if done in a manner that leaves no lasting impact on the beach or uplands;

b. Salvage timber cut as part of some authorized use within the wilderness (e.g., clearing for a fish hatchery);

c. Fuel, shelter, or other non-wasteful subsistence uses if the individual does not have a suitable source equally accessible outside of the wilderness;

Wilderness (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	<p>d. Cutting of trolling poles on an emergency basis by fishermen using adjacent waters;</p> <p>3. Cutting timber for use within the wilderness for authorized uses (e.g., trail maintenance, shelter construction).</p>		
	<p>7. Aquaculture projects may be authorized in a wilderness to meet the goal of restoring and maintaining fish production to optimum sustained yield levels. Cooperative fisheries planning with the State will be the basis for determining aquaculture facilities needed within wilderness areas. To the extent that opportunities are available and economically feasible, man-made facilities and treatments that would introduce new species or gene pools into a watershed will be planned for areas outside wilderness. However, all forms of aquaculture projects may be authorized in wilderness if necessary to meet the goal.</p>		
	<p>8. Privately constructed cabins or similar structures:</p> <p>a. Existing valid special use permits for cabins, homesites, or similar structures will be renewed unless the Regional Forester finds (following notice to and an opportunity for the permittee to respond) that the permit constitutes a direct threat or a significant impairment to the purposes for which the wilderness was established.</p> <p>b. Existing cabins and related structures for which a valid permit does not exist may be issued nontransferable, renewable 5-year special use permits for customary uses which are compatible with the purposes for which the wilderness was established. No permit will be issued for private recreation use.</p>		

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	<p>c. Construction of new cabins may be authorized by the Regional Forester by nontransferable, 5-year special use permits. The proposed cabin must be either directly related to the administration of the wilderness or necessary for an authorized activity or use where the applicant has no reasonable alternative site for constructing a cabin. No permits shall be issued for the construction of private recreation cabins. Any new cabin constructed will be the property of the United States.</p> <p>d. Cabins or other structures not under permit shall be used only for official Government business--provided, that during emergencies involving human safety or where designated for public use by the Forest Supervisor, such cabins may be used by the general public.</p>		
	<p>9. Existing public recreation cabins and shelters may continue to be used, maintained, and replaced. A limited number of new cabins and shelters may be constructed and maintained where necessary for the protection of public health and safety. Public use patterns will be monitored and the location and number of cabins and shelters will be adjusted to best fit the health and safety needs of the user. A recreation opportunity spectrum and public health and safety analysis will be the basis for making decisions through the Forest planning process. Congressional committees shall be notified of any proposed addition or deletion of cabins or shelters within wilderness.</p>		
	<p>10. Persons who on or before January 1, 1979, were engaged in adequately providing any other type of visitor service shall be permitted to continue providing such services within that wilderness if consistent with wilderness purposes.</p>		

Wilderness (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
	<p>11. Existing navigation aids, communication sites, and facilities for National defense purposes, weather, climate and fisheries research and monitoring are permitted. New facilities for these purposes shall be permitted but only in accordance with conditions which minimize adverse effects on the wilderness. The use of motorized access and equipment is authorized. Forest Supervisors will consult with permittees to develop procedures which will minimize impacts on the wilderness without unreasonably limiting the operation and maintenance of permitted facilities.</p>	<p>12. Forest Supervisors will jointly plan their wilderness areas with appropriate State agencies to resolve joint issues in fish and wildlife management, compatible use of State owned or controlled lands and to establish mutually beneficial direction.</p>	
<p>13. Key parcels of private land will be acquired as opportunities arise through land purchase, donation, or exchange authorities. Such acquisition will be on a voluntary basis.</p>			
<p>14. Guidelines will be developed through the Forest planning process for the Forest Service use of motorized equipment in wilderness. The Forest Service will minimize impact of its own activities on wilderness and the experience values of the visitor.</p>			

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
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15. The Forest Service shall permit the continuance of existing uses and the future establishment and use of temporary campsites, tent platforms, shelters and other temporary facilities and equipment directly and necessarily related to the taking of fish and wildlife. A revocable special use permit will be issued to allow such occupancies. The Regional Forester may determine, after adequate notice, that the establishment and use of new facilities or equipment would constitute a significant expansion of existing facilities or uses which would be detrimental to the purposes for which the wilderness was established, including its wilderness character. Forest land management plans will identify the location and levels of such use as of December 2, 1980, and the need to expand or restrict such use.

16. Implement "no trace" woodsmanship and "pack-it-in/pack-it-out" programs for all wilderness visitors.

More specific direction on the policies noted above can be found in Forest Service Manual 2320, R-10 Supplement.

Cultural Resources

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. Assure compliance with Federal antiquities legislation by:</p> <p>a. Including an archeologist on the interdisciplinary team to conduct an archeological investigation as part of management plans where cultural resources are likely to be involved.</p>	<p>1. Manage cultural resources as a non-renewable National heritage:</p> <p>a. Assure cultural resource specialists input to project planning at the earliest possible time.</p>		Area Guide policy adopted as Regional Guide policy.
<p>b. Evaluating presently known cultural resources for nomination to the National Register of Historic Places and continuing nomination as eligible sites are discovered.</p>	<p>b. Evaluate cultural resources for inclusion in the National Register of Historic Places.</p>		
<p>c. Instituting procedures to assure that Forest Service plans and programs contribute to the preservation and enhancement of nonfederally owned cultural resources.</p>	<p>c. Forest Service plans and programs affecting cultural resources need to contribute to the preservation and enhancement of cultural resources and assure access to sites or resources important to traditional Native religious practices, rites, or ceremonies.</p>		
<p>d. Planning forest management activities involving ground disturbance so that adverse impacts on cultural resources are avoided or, if unavoidable, to arrive at mutually satisfactory procedures for mitigating adverse impacts by consultation and cooperation with the State Historic Preservation Officer and the National Advisory Council on Historic Preservation.</p>	<p>d. Avoid adverse effects where possible, or develop mitigation alternatives in consultation with the State Historic Preservation Officer and Advisory Council on Historic Preservation, after obtaining and considering input from affected Native groups.</p>		
<p>2. Encourage and cooperate with recognized educational institutions in the identification and study of historic and archaeological sites.</p>	<p>2. Encourage and cooperate with recognized educational institutions in the identification and study of historic and archaeological sites.</p>		Area Guide policy adopted as Regional Guide policy.
<p>3. Acquaint and orient field personnel in methods of recognizing and describing cultural resources and in understanding the provisions of Federal antiquities legislation and the regulations developed to implement it.</p>	<p>3. Provide cultural awareness opportunities for all Forest Service personnel to illustrate and foster an awareness and understanding of the variety, complexity, and adaptability of prehistoric and historic Native cultures of the Region.</p>		Clarification of Area Guide policy in response to the Congressional Resolution on Native American Freedom of Religion, adopted as Regional Guide policy.

Cultural Resources (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
4. Develop an interpretive management program for archaeological or historical sites in cooperation with the State of Alaska.	4. Cooperate with the State and Native owners of cultural resources to develop programs for public interpretation of and education about cultural resources and their management on National Forest System lands.		Clarification of Area Guide policy in response to the Congressional Resolution on Native American Freedom of Religion and the Archaeological Resources Protection Act adopted as Regional Guide policy.
5. No Area Guide policy.	5. Develop cooperative agreements with Native groups to protect and manage cultural resources.		Regional Guide policy developed in response to the Joint Congressional Resolution on Native American Freedom of Religion, Archaeological Resources Protection Act, and the Alaska Lands Act.

Transportation

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<u>Transportation Resource Management</u>	<u>Transportation Resource Management</u>	<u>Transportation Resource Management</u>	<u>Transportation Resource Management</u>
<p>1. Transportation planning will be integrated with present and future land management plans at the allocation, prescription and implementation levels of planning. Plans will identify, as far as possible, what transportation modes will be developed for a given area.</p>	<p>1. Prescriptive plans will provide for special study of specific options and will indicate where transportation facilities are likely to be located. These locations may be modified by further IDT input and economical and environmental analysis. The Forest plan will attempt to specify areas such as proposed road corridors, applicable yarding methods, and the type of water transport to be used where logging is contemplated.</p>	<p>1. Prescriptive plans will provide for special study of specific options and will indicate where transportation facilities are likely to be located. These locations may be modified by further IDT input and economical and environmental analysis. The Forest plan will attempt to specify areas such as proposed road corridors, applicable yarding methods, and the type of water transport to be used where logging is contemplated.</p>	<p>This policy is incorporated into the Regional Guide Transportation and Utility Corridor standards and guidelines.</p>
<p>Prescriptive plans will provide for special study of specific options and will indicate where transportation facilities are likely to be located. These locations may be modified by further IDT input and economical and environmental analysis. The Forest plan will attempt to specify areas such as proposed road corridors, applicable yarding methods, and the type of water transport to be used where logging is contemplated.</p>			<p>Area Guide policy retained as Forest policy.</p>
<p>2. Project plans will include the final determination of transportation modes and related facilities and their specific locations.</p>		<p>2. Project plans will include the final determination of transportation modes and related facilities and their specific locations.</p>	<p>Area Guide policy retained as Forest policy.</p>
<p>3. An economic and environmental analysis will be used to determine facility standards at the prescription level and these standards will be met during the implementation phase. Forest prescriptive and project plans will not preclude future transportation development appropriate to the particular land use designation.</p>		<p>3. An economic and environmental analysis will be used to determine facility standards at the prescription level and these standards will be met during the implementation phase. Forest prescriptive and project plans will not preclude future transportation development appropriate to the particular land-use designation.</p>	<p>Area Guide policy retained as Forest policy.</p>

Transportation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>4. The Forest Service will continue to engage in comprehensive and coordinated transportation planning with other Federal, State, and local government agencies to provide a Forest-wide perspective of how individual networks fit into the overall transportation system.</p>			<p>This policy is incorporated into the Regional Guide Transportation and Utility Corridor standards and guidelines.</p>
<p>5. Transportation modes and their related facilities will be located, designed and constructed to minimize change to the environment and resources and will be in compliance with policies as established in the resource accounts.</p>		<p>5. Transportation modes and their related facilities will be located, designed and constructed to minimize change to the environment and resources and will be in compliance with policies as established in the resource accounts.</p>	<p>Area Guide policy retained as Forest policy.</p>
<p>6. Local communities will be involved in the transportation system planning process.</p>			<p>This policy is incorporated into the Regional Guide Transportation and Utility Corridor standards and guidelines.</p>
<p>7. Logging roads scheduled to be placed in storage category after use will be incorporated as part of the trail system whenever recreation or other resource needs warrant.</p>	<p>1. The Forest Service will employ a wide range of choices in methods for managing roads. The following goals will be considered:</p> <ul style="list-style-type: none"> a. A range of recreational experiences will be provided from pedestrian-only to full-use motorized vehicles. b. The need for dispersal of people to accommodate fishing and hunting and non-consumptive use of wildlife. c. The long-term land management objectives of the accessible land area. 		<p>Clarification and elaboration of Area Guide transportation policy for Regional Guide policy to conform to RPA and other direction.</p>
	<p>2. The Forest Service endorses cooperative use of the Forest Development Road System for hauling of commercial products recognizing that user conflicts will occur in some situations. The commercial user hauling from other than National Forest</p>		

Transportation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. Transportation corridor allocation and development will be performed in compliance with the policies and criteria established in the other resource accounts. Projects will be planned, located, designed and constructed to recognize other resource values and to minimize anticipated adverse environmental impacts.</p> <p>2. Transportation corridor alteration and development will be coordinated with the</p>	<p>lands is expected to assume a share of the original construction and maintenance costs of the roads used. The costs will be proportioned on the basis of the use of the hauler and the total use of the road.</p> <p>3. Conservation of petroleum energy supplies will be considered in the location, design, construction, and operation of the transportation system.</p> <p>4. Roads that are not part of the permanent transportation system will have vegetation established within 10 years following termination of the timber sale contract or other permit or lease under which it was built.</p> <p>5. Roads will be constructed in the most cost-efficient manner, considering other resource values. The Forest Highway Program and joint financing of construction will be used as methods to construct facilities to a higher standard where appropriate.</p>	<p><u>Transportation and Utility Corridors</u></p> <p>1. Transportation and utility corridor planning and development will be in compliance with the policies and criteria established in this and other resource elements. Transportation facilities constructed by the Forest Service will meet standards required for the use, management, and protection of the National Forest System, considering safety, costs of transportation (including operation and maintenance), and impacts on other resources.</p> <p>2. Transportation and utility corridor planning and development will be coordinated with the Canadian, Federal, State,</p>	<p><u>Transportation and Utility Corridors</u></p> <p>Clarification of Area Guide policy adopted as Regional Guide policy. See EIS - Transportation and Utility Corridors.</p> <p>Clarification of Area Guide policy adopted as Regional Guide policy. See EIS - Transportation and Utility Corridors.</p>

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
Canadian, Federal, State, and local government agencies having jurisdictional, delegated or assigned responsibilities connected with either corridor development or land management.	and local government agencies as well as private land owners. Transportation connections by the Forest Service will not be made between communities or emerging communities without the participation and collaboration of State and local governments, communities, and affected individuals.		
3. The Forest Service as the principal land manager in Southeast Alaska will review all proposals and plans of any Federal, State or local government agency, firm or individual for any development of a new transportation corridor within the Tongass National Forest. Changes to an existing corridor development within the Tongass National Forest shall be contingent upon the approval of the appropriate Forest Service line officer. Approval will require documentation of sufficient public involvement. The Forest Plan will indicate the locations of transportation corridors identified to date.	3. The State of Alaska has identified several natural transportation corridors in Southeast and Southcentral Alaska for possible land transportation facilities. The primary function of these corridors is for the transportation of people, goods, and services between communities. Consideration of the allocation of lands along these corridors for transportation and utility purposes is required in Forest planning. Allocated transportation corridors will be included in Forest Highways as appropriate.		Clarification of Area Guide policy adopted as Regional Guide policy. See EIS - Transportation and Utility Corridors.
4. Approved transportation corridor proposals and plans will be integrated with present and future land management plans at all planning levels to utilize each corridor resource to the greatest extent possible.	4. Transportation planning will be integrated with present and future land management plans to the extent feasible. Forest Plans will show existing and anticipated forest arterial and major collector corridors. Plans will identify, as far as possible, what modes of transportation will be developed for a given area. Water transportation modes and anticipated terminal transportation facilities will be specified where logging activities, ferry terminals, public access, barge ramps, and similar facilities are intended. The likely corridor locations for other transportation facilities will be subsequently developed.		Area Guide policy modified and adopted as Regional Guide policy. See EIS - Transportation and Utility Corridors.
5. Approved transportation and utility corridor proposals and plans will be integrated with Forest Plans at all planning levels to utilize each corridor to the greatest extent possible. Corridors for future utilities usage will follow existing and future land transportation routes to the extent practicable and appropriate. Electrical transmission facilities constructed and maintained without road access need not follow road corridors.	5. Approved transportation and utility corridor proposals and plans will be integrated with Forest Plans at all planning levels to utilize each corridor to the greatest extent possible. Corridors for future utilities usage will follow existing and future land transportation routes to the extent practicable and appropriate. Electrical transmission facilities constructed and maintained without road access need not follow road corridors.		Area Guide policy modified and adopted as Regional Guide policy. See EIS - Transportation and Utility Corridors.

Transportation (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
No Area Guide Policies	<p>6. Existing transportation corridors are recognized as the combination of land, water, and air transportation modes which provide transportation access between communities and other developed use areas in Alaska. Existing utility corridors are chose land and water based routes over which pipelines, electrical transmission lines, or communication lines traverse where utilities are being provided from the source to a community or major user or between communities.</p>		See EIS - Transportation and Utility Corridors.

Lands

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. The Forest Service will work actively with State and local governments to make lands available for needed private and public community development.</p>	<p>1. Work actively with State and local governments for full compliance with the intent of the Alaska Statehood Act. To the extent possible, fulfill the needs for community expansion and recreational areas as well as for prospective community centers.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy.</p>
<p>2. Ownership adjustment needs will be identified as part of the land management planning process. Emphasis will be directed toward State selections adjacent to existing communities. The State plans to identify priority selections by June 1, 1977, and general program selections by December 1977. It is Forest Service policy to work with State agencies and local communities to substantially eliminate Forest ownership in and adjacent to communities where State, Borough or community governmental jurisdiction should logically preside.</p>	<p>2. Ownership adjustment needs will be identified as part of the forest planning process. Emphasis will be directed toward State selections adjacent to existing communities. It is Forest Service policy to work with State agencies and local communities to substantially eliminate Forest ownership in and adjacent to communities where State, Borough, or community governmental jurisdiction should logically preside.</p>		<p>Area Guide policy modified and adopted as Regional Guide policy. The State of Alaska has until 1994 to select more than 100,000 acres of National Forest lands.</p>
<p>3. There is to be full compliance with the intent of the Statehood Act and, to the extent possible, there will be fulfillment of the needs and desires of the State and its people for National Forest lands for community expansion and recreational areas as well as for prospective community centers.</p>	<p>3. Omitted</p>		<p>Combined with Area Guide policy 1 as Regional Guide policy 1 above.</p>

Lands (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
4. Those priority State selections submitted by the State by June 1977 will be considered for planning purposes.	4. Known State selections, Native corporation selections, and Native allotment claims will be considered in the forest planning process.		Area Guide policy updated and adopted as Regional Guide policy.
5. Forest Supervisors will continue to work with the State and local authorities to identify local selection needs and to overcome associated land status problems.			Area Guide policy incorporated into Regional Guide policy.
6. Uses that can reasonably be accommodated on other lands will not be authorized on the Tongass National Forest. (See FSM Emergency Directive 16).	5. Uses that can reasonably be accommodated on other lands will not be authorized on the National Forest System lands.		Area Guide policy changed to delete word Tongass and adopted as Regional Guide policy.
7. Existing isolated hunter cabin, recreation residence and residence permits will not be closed unless required by the terms of the permit or unless there is a demonstrated higher public need. Existing recreation residences and residence permits located in approved groups will be continued subject to the provisions of the permits.	6. When permitted by the Alaska Lands Act, allow existing isolated hunter cabins, recreation residences, and residence permits, and approved groups of existing recreation residences and residence permits subject to the provisions of the permits unless a higher public need is demonstrated through the forest planning process. (Refer to the wilderness element for policies in cabins in wilderness.)		Clarification of Area Guide policy in response to the Alaska Lands Act adopted as Regional Guide policy.
8. Outfitting and guiding activities associated with National Forest Lands will be administered under the occupancy permit system.	7. Administer outfitting and guiding activities associated with National Forest lands under the occupancy permit system with consultation and coordination with appropriate agencies.		Clarification of Area Guide policy adopted as Regional Guide policy.
9. Decisions on occupancy permits will be evaluated for compatibility with long-term public interest based on a consideration of environmental values, economic feasibility	8. Decisions on occupancy permits will be evaluated for compatibility with long-term public interest based on a consideration of environmental values, economic feasibility		Area Guide policy adopted as Regional Guide policy.

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
and a determination of social and/or economic benefit. Permits will not be approved solely for the purpose of creating a business opportunity.	and a determination of social and/or economic benefit. Permits will not be approved solely for the purpose of creating business opportunities.		
10. A land adjustment plan will be prepared by 1981, following the Tongass Land Management Plan. Emphasis will be directed toward resolving management problems represented by isolated private land holdings in critical locations.			Area Guide policy updated and incorporated into Regional Guide policy.
11. Special use permits authorizing non-profit hatcheries will be issued to qualified applicants holding State hatchery permits on sites cleared for occupancy through an environmental analysis and/or environmental impact statement. State aquaculture site needs will be handled in coordination with the Alaska Department of Fish and Game or other agencies and in compliance with the National Environmental Policy Act and other Tongass Land Management Guide policies and plans.			Content of Area Guide policy included in Regional Guide Aquaculture policies of Fish Element.
No Area Guide policy	9. Work actively with Native corporations for full compliance with the intent of the Alaska Native Claims Settlement Act.		Alaska Native Claims Settlement Act.
No Area Guide policy	10. Review and adjust special-use fees on a planned basis to comply with the Federal Land Policy and Management Act.		Federal Land Policy and Management Act of 1976
No Area Guide policy	11. Survey and maintain boundary lines resulting from State and Native conveyances and boundary lines presenting significant potential management problems on a planned basis. Monitor unsurveyed boundary lines to minimize future problems and assist in establishing survey priorities.		Changing Ownership in Alaska

Lands (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
No Area Guide policy	12. Identify areas suitable for and representative of various ecosystems as part of a Research Natural Areas/Ecological Reserves system. Select each Research Natural Area to represent the greatest number of ecological and geological type needs possible, locating sites on lands already withdrawn when appropriate, by following in each Forest Supervisor's Area the sequential planning and selection steps contained in the implementation plan for establishing Research Natural Areas/Ecological Reserves (Appendix A of the Regional Guide).		National Forest Management Act

Forest Pest Management

Southeast Alaska Area Guide Policies

Regional Guide Policies

Insect and Disease Management

Insect and Disease Management

1. In general, native insect outbreaks or disease conditions in old-growth forests will be allowed to run their course. Tree losses will be accepted, yet harvesting flexibility will be maintained to take advantage of timber salvage opportunities. Insect suppression may be justified in high quality, old-growth stands that cannot be salvaged immediately or that lie near recreation areas and communities where scenic values are high.

2. From an insect or disease standpoint, logging in old-growth timber should be concentrated in the stands that are least able to recover from insect or disease damage and where the greatest losses, therefore, occur.

3. The primary approach to insect and disease management for second growth should be prevention, augmented by suppression. Prevention consists largely of stand manipulation to maximize effects of natural pest mortality factors. An example is the design of smaller clearcuts on a staggered harvesting schedule. This cutting pattern reduces the area of single-aged, contiguous stands, conducive to the buildup of certain insect populations. Another example is the removal of all dwarf mistletoe-infected western hemlock within harvest units.

4. Forest insect and disease detection and evaluation surveys will be conducted, and recommendations will be provided on appropriate methods of preventing or otherwise managing insect and disease problems. This service can include field evaluations, written reports, and formal and informal training.

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Insect and Disease Management

Area Guide policy adopted as Regional Guide policy.

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Forest Pest Management (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<u>Pesticide Use</u>	<u>Pesticide Use</u>	<u>Pesticide Use</u>	
<p>1. Pesticides will be used only when resource management objectives are best accomplished by this means. When technologically available and economically feasible, biological, cultural, or integrated techniques will be used in place of or in association with pesticides. An example is the reliance on mechanical control exclusively or mechanical brush control supplemented with herbicide treatment of cut stems, as opposed to full reliance on herbicide application alone.</p>	<p>1. Pesticides will be used only when resource management objectives are best accomplished by this means. When technologically available and economically feasible, biological, cultural, or integrated techniques will be used in place of or in association with pesticides. An example is the reliance on mechanical control exclusively or mechanical brush control supplemented with herbicide treatment of cut stems as opposed to full reliance on herbicide application alone.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>2. Biological, environmental, and economic costs and benefits of pesticide use are to be identified and weighed prior to Forest Service application of pesticides on National Forest land. Similar assessments will be requested from prospective State, and other Federal grantee, permittee, and licensee applicants on National Forest land. Environmental factors to be weighed in pesticide use decisions are likely adverse effects to nontarget plants, wildlife, fish, water supplies, and human safety. As a minimum, no pesticide application on the Tongass Forest should be allowed to reduce wildlife or fish habitat or populations below levels determined jointly by the Forest Service and other agencies having management jurisdiction.</p>	<p>2. Biological, environmental, and economic costs and benefits of pesticide use are to be identified and weighed prior to Forest Service application of pesticides on National Forest land. Similar assessments will be requested from prospective State, other Federal, grantee, permittee, and licensee applicants on National Forest land. Environmental factors to be weighed in pesticide use decisions are likely adverse effects to nontarget plants, wildlife, fish, water supplies, and human safety. As a minimum, no pesticide application on the National Forests should be allowed to reduce wildlife or fish habitat or populations below levels determined jointly by the Forest Service and other agencies having management jurisdiction.</p>		<p>Word Tongass changed to National Forests. Area Guide policy adopted as Regional Guide policy.</p>
<p>3. Pesticides for other than "house-keeping" purposes will be employed only after such use has been documented in an environmental impact statement or environmental analysis report and recommended for approval by the Regional Pesticide Use Coordinating Committee.</p>	<p>3. Pesticides for other than "house-keeping" purposes will be employed only after such use has been documented in an environmental impact statement or environmental assessment and recommended for approval by the Integrated Pest Management Working Group.</p>		<p>Area Guide policy updated to include current terminology and adopted as Regional Guide policy.</p>

Forest Pest Management (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>4. Environmental Impact Statements dealing with pesticide projects will be available for public review. When environmental statements are not prepared, the availability for the environmental analysis reports will be announced.</p>	<p>4. Environmental Impact Statements dealing with pesticide projects will be available for public review. When environmental statements are not prepared, the availability for the environmental assessments will be announced.</p>		<p>Area Guide policy updated to include current terminology and adopted as Regional Guide policy.</p>
<p>5. When pesticide use is judged necessary, selection and application will be based on the following guidelines:</p> <p>a. Those application methods and formulations will be used that are most effective in suppressing the pest, most specific to the target organisms, and least harmful to nontarget components of the environment.</p> <p>b. In operational pest management programs, only those pesticides will be used that are registered in accordance with the Federal Insecticide, Fungicide and Rodenticide Act, as amended, except as otherwise provided in regulations issued by the Environmental Protection Agency or the Department of Agriculture.</p> <p>c. Application will be restricted to the minimal effective dosage that, when precisely applied to the target area at optimum times, will accomplish the resource management objectives.</p>	<p>5. When pesticide use is judged necessary, selection and application will be based on the following guidelines:</p> <p>a. Those application methods and formulations will be used that are most effective in suppressing the pest, most specific to the target organisms, and least harmful to nontarget components of the environment.</p> <p>b. In operational pest management programs, only those pesticides will be used that are registered in accordance with the Federal Insecticide, Fungicide and Rodenticide Act, as amended, except as otherwise provided in regulations issued by the Environmental Protection Agency or the Department of Agriculture.</p> <p>c. Application will be restricted to the minimal effective dosage that, when precisely applied to the target area at optimum times, will accomplish the resource management objectives.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>6. Provision will be made for review and approval of pesticide use proposals by concerned Federal, State, and local agencies, where appropriate. Required legal clearances will be obtained.</p> <p>7. Pesticides will be handled, stored, and disposed of in accordance with Federal, State, and local laws and regulations.</p>	<p>6. Provision will be made for review and approval of pesticide use proposals by concerned Federal, State, and local agencies, where appropriate. Required legal clearances will be obtained.</p> <p>7. Pesticides will be handled, stored, and disposed of in accordance with Federal, State, and local laws and regulations.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>

Forest Pest Management (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>8. Forest Service investigations will be conducted to evaluate the effectiveness and environmental safety of new or improved pest management tools and methods to maintain an state-of-the-art capability for pesticide management.</p>	<p>8. Forest Service investigations will be conducted to evaluate the effectiveness and environmental safety of new or improved pest management tools and methods to maintain a state-of-the-art capability for pesticide management.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>9. Training will be provided for all personnel who handle pesticides or who supervise their use. Training of personnel involved in pesticide-use management is basic to accomplishing a safe, effective, and efficient job. Commitment can be obtained only when personnel recommending, supervising, or using pesticides understand the complexity of the task. Only qualified personnel will recommend and use pesticides. Qualification standards will be equal to or greater than those required by Federal and State training and certification plans. Personnel recommending, supervising, or using restricted pesticides will be certified and/or licensed as required by the State.</p>	<p>9. Training will be provided for all personnel who handle pesticides or who supervise their use. Training of personnel involved in pesticide-use management is basic to accomplishing a safe, effective, and efficient job. Commitment can be obtained only when personnel recommending, supervising, or using pesticides understand the complexity of the task. Only qualified personnel will recommend and use pesticides. Qualification standards will be equal to or greater than those required by Federal and State training and certification plans. Personnel recommending, supervising, or using restricted pesticides will be certified and/or licensed as required by the State.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>10. Where endangered or threatened species habitat is involved, pesticides will be used only after it has been determined, in conjunction with Federal and State wildlife management specialists, that such use will not adversely affect either the species or their critical habitats.</p>	<p>10. Where endangered or threatened species habitat is involved, pesticides will be used only after it has been determined, in conjunction with Federal and State wildlife management specialists, that such use will not adversely affect either the species or their critical habitats.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>
<p>11. Monitoring programs will be conducted to determine whether the pesticide has been applied safely and restricted to the target area. Monitoring to quantify the environmental effects of a pesticide being developed for forestry use may be required to secure registration of the material. An environmental analysis report should identify the potential for adverse environmental effects and the degree and complexity of monitoring required.</p>	<p>11. Monitoring programs will be conducted to determine whether the pesticide has been applied safely and restricted to the target area. Monitoring to quantify the environmental effects of a pesticide being developed for forestry use may be required to secure registration of the material. An environmental assessment should identify the potential for adverse environmental effects and the degree and complexity of monitoring required.</p>		<p>Environmental analysis changed to environmental assessment to reflect correct terminology and Area Guide policy adopted as Regional Guide policy.</p>

Protection

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
<p>1. In the majority of cases the Forest Service believes that Forest users are responsible for their own welfare and safety while working in, or visiting, the generally undeveloped portions of the Forest. The Forest Service will assist users in assuming this responsibility through programs of public information and education.</p>	<p>1. In the majority of cases, it is the responsibility of Forest users to provide for their own welfare and safety while working in, or visiting, the generally undeveloped portions of the Forests. Assist users in assuming this responsibility through programs of public information and education.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy.</p>
<p>2. In the event of an emergency involving an imminent threat to life and property, the Forest Service will render all available assistance requiring use of Forest Service resources.</p>	<p>2. In the event of an emergency involving an imminent threat to life and property, render all available assistance.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy.</p>
<p>3. In the event of a major disaster, the Forest Service will assist State and local governments in carrying out their responsibilities to alleviate suffering and damage. To effect such assistance, the Forest Service will develop a coordinated disaster plan with other agencies responsible for disaster relief.</p>	<p>3. In the event of a major disaster, assist State and local governments in carrying out their responsibilities to alleviate suffering and damage. To effect such assistance, develop a coordinated disaster plan with other agencies responsible for disaster relief.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy.</p>
<p>4. Legal responsibilities for search and rescue lie with the U.S. Coast Guard and the Alaska State Troopers. When emergencies involving search and rescue occur on National Forest lands, however, the Forest Service will, upon request from the above agencies, assign designated personnel to assist. Forest Supervisors will cooperate with Federal and State agencies and local governments in preparing search and rescue plans for each area that define the Forest Service role in assisting search and rescue operations.</p>	<p>4. Legal responsibilities for search and rescue lie with the U.S. Coast Guard and the Alaska State Troopers. When emergencies involving search and rescue occur on National Forest lands, upon request from the above agencies, assign personnel to assist. Cooperate with Federal and State agencies and local governments in preparing search and rescue plans that define the Forest Service role in assisting search and rescue operations.</p>		<p>Clarification of Area Guide policy adopted as Regional Guide policy.</p>
<p>5. Through public information programs, explain the impact of vandalism and encourage more positive use of the Forest and more considerate treatment of others.</p>	<p>5. Through public information programs, explain the impact of vandalism and encourage more positive use of the Forest and more considerate treatment of others.</p>		<p>Area Guide policy adopted as Regional Guide policy.</p>

Protection (cont'd)

Southeast Alaska Area Guide Policies	Regional Guide Policies	Forest Plan Policies	Comments
6. Emphasize cooperative law enforcement activities with Alaska State Troopers in dealing with and correcting violations of State and Federal laws on National Forests.	6. Emphasize cooperative law enforcement activities with Alaska State Troopers in dealing with and correcting violations of State and Federal laws on National Forests. Use trained Forest Officers to assist in enforcing Federal laws and regulations, as appropriate.		Area Guide policy modified to include Forest Service law enforcement program and adopted as Regional Guide policy.
No Area Guide policy	7. Participate with the State of Alaska and other cooperators in development and implementation of the Alaska Avalanche Warning System and other related avalanche control activities.		Incorporation of ongoing State and Private Forestry Program as Regional Guide policy.

Appendix C

PUBLIC COMMENTS

OVERVIEW

A total of 168 letters was received on the Alaska Region Draft Regional Guide¹ and EIS. Comments came from many parts of the continental United States and from many areas in Alaska. (See Table C-1.) The Alaskan response came primarily from major population centers in Southcentral and Southeast Alaska. The majority of the total comments came from individuals who did not claim to represent local, State, or Federal agencies; industrial or commercial concerns; Alaska Natives; environmental or conservation groups; or academic institutions. There were 128 of these respondents.

Comments were analyzed using an approach that searched for comments that represented both thematic and idea variables. In terms of this analysis, variables consist of likes, dislikes, understandings, or beliefs, such as a preference for strong central governments or a belief that snow-capped mountains are beautiful. The variables were developed to answer the needs of the decisionmaking process and to convey the stated opinions of the public to decisionmakers. In this case, the planning team was looking for comments that recommended substantive improvements to the Draft Regional Guide and Draft EIS.

The planning team identified important subject areas, and, as comments came in, analysts compared the original categories to the messages actually sent from the public. The result was a codebook, which allowed translation of similar messages appearing in different letters into the same code. A series of letter and number codes were developed to represent categories within the variables. For example: location variable, category code "SE", indicates a comment from a person living in Southeast Alaska; and desired management style variable, category codes "2-1", indicate a respondent's apparent desire for centralized land management.

Comments received on or before November 13, 1981, became a part of the content analysis and the official comment record. All comments were scrutinized by the planning team, including those received after November 13, 1981. The latter responses were handled by the planning team as regular correspondence.

The coding and tabulation of the comments identified 52 representative letters, which represent bodies of unique themes or ideas. The contents of

¹ After the close of the comment period, the revised NFMA regulations changed the title of the Regional Plan to Regional Guide. To avoid confusion in terminology, the text and comments have been revised to refer to the Draft Regional Plan as the Draft Regional Guide.

some of the representative letters share nothing with contents of other letters. However, in most cases, contents show some overlap. The representative letters are included at the end of this appendix.

Comments obtained from Forest Service personnel were coded and individually reviewed by the planning team. They are not included in the representative letters. The Southeast Alaska Conservation Council conducted a letter-writing campaign that resulted in 111 letters reflecting the same concerns. Because the comments and concerns expressed in these letters were so similar, they were considered as a single body of comments that was addressed in revisions to the drafts.

Each member of the Regional planning team was given a packet of all the representative comments, which ranged from concern that the Regional Guide did not address the issue of harvesting old-growth forest and deer habitat to pointing out typographical errors in the document text. Each member read the comments and made notes prior to team discussion of the comments. The members determined those comments that could easily be addressed by one individual versus those that required interdisciplinary team action. The individual changes were made without discussion by the team and covered such simple topics as typographical or factual errors in the documents. The interdisciplinary team met to discuss all substantive comments and to make recommendations for changes in the documents in response to these comments. The Final Regional Guide and EIS include these changes.

The following list of comments and responses does not include all individual comments on the Draft Regional Guide and Draft EIS contained in the representative letters. Rather, the list includes all substantive comments that required a response beyond making changes in the text. Those comments that did not require a response, such as, "I agree with the selection of Alternative D as the preferred alternative for Systems of Silviculture," were addressed by the interdisciplinary team, but are not included here.

The public comments and Forest Service responses are organized into three sections: comments on issues; comments on the Draft EIS; and comments on the Draft Regional Guide. These are further subdivided into sections that follow the outline of the documents. Comments that did not specifically apply to any particular chapter of either document are included at the end of this appendix under the heading of "Other Comments."

At the beginning of each section, a brief summary of the changes made in the final documents in response to the comments is included. Only those comments requiring additional response are included in this appendix.

Table C-1, a list of commentors to the Alaska Region Draft Regional Guide and EIS, appears on the following pages. Representative comments and the Forest Service responses to these comments follow Table C-1. As required by Forest Service NEPA procedures FSH 1909.15, Section 32.51b, copies of all comments from Federal, State, and local agencies and from elected officials are included at the end of this appendix.

Table C-1

List of Commentors

1	John A. Kostopoulos	Boron, California
2	Rick Wicks	Anchorage, Alaska
3	Clarence Petty	Canton, New York
4	Richard E. McArdle	Bethesda, Maryland
5	Alaska Department of Transportation and Public Facilities, Southeast Region	Juneau, Alaska
6	USDA Soil Conservation Service, State Conservationist	Anchorage, Alaska
7	Alaska Department of Commerce and Economic Development	Juneau, Alaska
8	Louisiana--Pacific Corporation, Ketchikan Division	Ketchikan, Alaska
9	U.S. Department of Housing and Urban Development	Seattle, Washington
10	A. P. Mustian, Jr.	U.S. Forest Service
11	Richard D. Hull	U.S. Forest Service
12	University of Alaska, Institute of Social and Economic Research	Anchorage, Alaska
13	Douglas E. Dobyns	Masset, British Columbia
14	Michael M. Perensovich, Jr.	U.S. Forest Service
15	Faye Ogilvie	Seattle, Washington
16	Russell R. Cunningham, Jr.	Anchorage, Alaska
17	Bernard Murphy	Valdez, Alaska
18	Ruth Ragle	Anchorage, Alaska
19	Mary Faue	Sitka, Alaska
20	Marsha Holbrook	Anchorage, Alaska
21	Robert Bosworth	Gustavus, Alaska
22	Edward C. Sargent III, M.D.	Shedd, Oregon
23	Thomas H. Wood	Petersburg, Alaska
24	George Frydor	Haines, Alaska
25	Virginia De Vries	Homer, Alaska
26	F. M. Baxandall	Midland, Michigan
27	U.S. Department of Commerce, NOAA, National Fisheries Service, Alaska Region	Juneau, Alaska
28	Cliff Lobaugh	Juneau, Alaska

Table C-1 (continued)

29	Bayliss	Juneau, Alaska
30	Mike Van Sicklen	Juneau, Alaska
31	Gertrude Schrader	Ketchikan, Alaska
32	Stuart Buchanan	U.S. Forest Service
33	Katherine W. Greenough	Juneau, Alaska
34	Kurt Becker	Wrangell, Alaska
35	Lee L. Antrim	Auke Bay, Alaska
36	Bob Dittrick	Anchorage, Alaska
37	Stephen R. Piper	Anchorage, Alaska
38	Judy Zimicki	Anchorage, Alaska
39	Jim Kentch	Anchorage, Alaska
40	Michael Frank	Anchorage, Alaska
41	Paul E. Turner	Kenai, Alaska
42	Mary Hogan	Anchorage, Alaska
43	Edward E. Bangs	Kenai, Alaska
44	Katya Kirsch	Haines, Alaska
45	Jack Allen	Anchorage, Alaska
46	U.S. Department of Housing and Urban Development, Seattle Regional Office	Seattle, Washington
47	Frank J. Keim	Hooper Bay, Alaska
48	Scott D. Brylinsky	Juneau, Alaska
49	Wildlife Management Institute	Washington, D.C.
50	Max M. Lewis	Juneau, Alaska
51	Jeffrey S. Trilling, M.D.	Fairbanks, Alaska
52	Alex Wertheimer	Juneau, Alaska
53	University of Alaska, Wildlife Department	Fairbanks, Alaska
54	John Laskey	Juneau, Alaska
55	Betty Carlson	Fairbanks, Alaska
56	Anonymous	Wrangell, Alaska
57	Jean Eisenhart	Ketchikan, Alaska
58	James R. Slocum	Douglas, Alaska
59	Mellen Shea Basset	Anchorage, Alaska
60	Margaret T. Mullen	Soldotna, Alaska
61	Linda Van Houten	Haines, Alaska
62	Michael Amaral	Chugiak, Alaska

Table C-1 (continued)

63	Richard J. Stolzberg	Fairbanks, Alaska
64	Brick Pavelsky	Fairbanks, Alaska
65	Ralph A. Wells, M.D.	Fairbanks, Alaska
66	Charles R. Cash	Anchorage, Alaska
67	James L. Davis	Fairbanks, Alaska
68	James Thompson	Juneau, Alaska
69	Susan Hills	College, Alaska
70	Thomas E. Jacobsen, D.D.S.	Mt. Edgecumbe, Alaska
71	Margaret R. Wolfe	Anchorage, Alaska
72	Buck Tilton	Sitka, Alaska
73	Karen Zvonik	Anchorage, Alaska
74	Sanna Green	Anchorage, Alaska
75	Gary Wilburn	Anchorage, Alaska
76	Alan Seegert	Anchorage, Alaska
77	Donald L. Surgeon	Anchorage, Alaska
78	Jay W. Nelsen	Anchorage, Alaska
79	Carol A. Gates	Anchorage, Alaska
80	Karl E. Lane	Juneau, Alaska
81	Andrea K. Frost	Portland, Oregon
82	Celia Foley	Anchorage, Alaska
83	Linda J. Ellis	Anchorage, Alaska
84	Mr. and Mrs. Kenneth C. Roy	Anchorage, Alaska
85	Robert M. Libbey	Anchorage, Alaska
86	Mary V. Hausler	Seattle, Washington
87	Ronald G. Hansen	Juneau, Alaska
88	David Lacey	Valdez, Alaska
89	James C. Brarcheay	Fairbanks, Alaska
90	National Audubon Society, Alaska Regional Office	Anchorage, Alaska
91	Vivian C. Menaker	Haines, Alaska
92	Larry Edwards	Sitka, Alaska
93	United Southeast Alaska Gillnetters	Juneau, Alaska
94	Juneau Audubon Society	Juneau, Alaska
95	Dulce Havill	Anchorage, Alaska

Table C-1 (continued)

96	Gerald R. Brookman	Kenai, Alaska
97	Joann Bernier Gal	Fairbanks, Alaska
98	Jack Calvin	Sitka, Alaska
99	Stan Schoening	Juneau, Alaska
100	Gordon Rodda	Ithaca, New York
101	Doug Woodby	Seattle, Washington
102	John Murray	Sitka, Alaska
103	Sierra Club, Alaska Chapter	Sitka, Alaska
104	Juneau Group of the Sierra Club	Juneau, Alaska
105	Julianna Humphreys	Juneau, Alaska
106	Bruce Hunner	Arcata, California
107	Janet Sorice	Juneau, Alaska
108	James A. Calvin	U.S. Forest Service
109	Alaska Office of the Governor, Governmental Coordination Unit	Juneau, Alaska
110	John R. Swanson	Berkeley, California
111	Larry Trani	Sitka, Alaska
112	Lee Schmidt	Mt. Edgecumbe, Alaska
113	C. S. O'Clair	Juneau, Alaska
114	Richard Myren	Lanai, Hawaii
115	Leon Kolankiewicz	Juneau, Alaska
116	Melissa Garling	Juneau, Alaska
117	Dan Kowalski	Juneau, Alaska
118	Patricia A. Dobbins	Juneau, Alaska
119	Jane Donnelly	Sitka, Alaska
120	Federation of Western Outdoor Clubs	Petersburg, Alaska
121	Andrew Grossman	Juneau, Alaska
122	Wildlife Society, Alaska Chapter	Juneau, Alaska
123	Rose Yates and Joseph Doerr	Petersburg, Alaska
124	John W. Schoen, Ph.D.	Juneau, Alaska
125	Joel Bennett	Juneau, Alaska
126	Robert T. Baade	Petersburg, Alaska
127	Conner Sorensen	Juneau, Alaska
128	Deborah Ballam	Juneau, Alaska
129	Karen S. Bollinger	Juneau, Alaska

Table C-1 (continued)

130	Mr. and Mrs. John M. Poling	Nome, Alaska
131	Shona Brunton	Fairbanks, Alaska
132	The Wilderness Society	Washington, D.C.
133	Southeast Alaska Conservation Council	Juneau, Alaska
134	Chris S. Kent	Juneau, Alaska
135	Richard M. Farnell	Juneau, Alaska
136	Mary A. Moorman and John R. Dillon	College, Alaska
137	Alaska Wilderness Sailing Safaris	Whittier, Alaska
138	Sarah Watson	Fairbanks, Alaska
139	City of Yakutat	Yakutat, Alaska
140	Carolyn Corder	Girdwood, Alaska
141	Mike Carrigan	Craig, Alaska
142	Linda Carrigan	Craig, Alaska
143	National Wildlife Federation, Resource Conservation Department	Washington, D.C.
144	Kirk Vail	Juneau, Alaska
145	Christian A. Smith	Ketchikan, Alaska
146	Juralyn Hath	McKinley Park, Alaska
147	Mary Sweeney	Douglas, Alaska
148	Sitka Conservation Society	Sitka, Alaska
149	Commercial Fisherman's Cooperative Association	Ketchikan, Alaska
150	Karen McCullough	Petersburg, Alaska
151	Sierra Club	Anchorage, Alaska
152	J. E. Hall	Anchorage, Alaska
153	Marylyn Conley	Ketchikan, Alaska
154	Judy Macnak	Auke Bay, Alaska
155	Mr. Adrian Post	Farmingdale, New York
156	Christopher Carroll	Pelican, Alaska
157	M. M. Hillstrand	Anchorage, Alaska
158	Center of Environmental Studies and Outdoor Education	China Poot Bay, Alaska
159	Oregon State University, Forest Research Laboratory	Corvallis, Oregon
160	Judy K. Hall	Philomath, Oregon

Table C-1 (continued)

161	U.S. Environmental Protection Agency, Region X	Seattle, Washington
162	David Finklestein	Anchorage, Alaska
163	Therese Armetta	Kodiak, Alaska
164	U.S. Department of the Interior, Regional Environmental Officer	Anchorage, Alaska
165	Division of Game, Alaska Department of Fish and Game	Anchorage, Alaska
166	Patricia A. Baird, Ph.D.	Anchorage, Alaska
167	Atlantic Richfield Co.	Denver, Colorado
168	Alaska Lumber and Pulp	Juneau, Alaska

Late Commentors

Gerald Garland	Juneau, Alaska
Helen Hooper	Sitka, Alaska
Cathy Luenin	Sitka, Alaska
Gregory P. Streveler	Gustavus, Alaska
Cooperrider and Giefer	Funter Bay, Alaska
Joel L. Meeker	Hilton Head Island, South Carolina
Alaska Lumber and Pulp Company	Juneau, Alaska
Cheryl A. Easterwood	Sitka, Alaska
Corinne Dillar Ryan	Ross, California
Alaska Department of Transportation and Public Facilities	Juneau, Alaska

Others

U.S. Borax and Chemical Corporation	Los Angeles, California
Noranda Mining, Inc.	Juneau, Alaska

PUBLIC COMMENTS ON THE ISSUES AND MANAGEMENT CONCERN

The issue and concern statements appearing in the first chapters of both documents were rewritten to respond to the comments that indicated disagreement with the disposition of some issues and misunderstanding of the information presented under other issues. Refer to the EIS and Regional Guide for the revised issue statements.

Possible Adverse Effects to Fisheries From Timber Harvest

COMMENT: Even if all precautionary measures are implemented, logging will still cause adverse effects on fisheries.

RESPONSE: Implementation of the standards and guidelines contained in the Regional Guide and the Southeast Alaska Area Guide will adequately prevent or mitigate potential adverse effects to fisheries from logging.

COMMENT: Salmon stocks can be increased by regulatory and management policies, but the limiting factor to the size of salmon stocks is available habitat. Forest development, especially logging, does decrease available habitat.

RESPONSE: Regulatory and management policies and habitat protection go hand-in-hand. Implementation of the standards and guidelines will adequately protect fisheries habitat. The commentor is correct in stating that the ultimate limiting factor is habitat. Presently there is more habitat available than is being utilized, and more habitat is being made available through our habitat enhancement program.

COMMENT: The most serious weakness of the Southeast Alaska Area Guide was the failure to provide for windfirm leave strips along salmon streams. This issue has still not been addressed, and we can expect continued degradation of fish habitat.

RESPONSE: The Southeast Alaska Area Guide mandates special protection of salmon streams, as does the Regional Guide. See fish standard and guideline, 5(a). Specific FHMU's are determined on the ground during project planning, considering the specific conditions of each site.

COMMENT: Rather than depend on fisheries enhancements, why not have logging methods and means that are not destructive to fish in both the long term and short term?

RESPONSE: Properly implemented logging methods have not been shown to result in significant adverse effects to fisheries habitat. Habitat protection standards have been developed to maintain proper stream temperatures, dissolved oxygen levels, adequate cover, minimal sedimentation, and free passage of fish.

COMMENT: Spawning habitat gets some attention from the Forest Service, but rearing habitat gets little protection. What happens to the spawning and rearing areas and what happens to fertilized and developing eggs and to rearing fry and smolt are critical in the maintenance of recreation, subsistence, and commercial fisheries. Results of management practices are seldom realized immediately; indeed, by the time a "mistake" has been made, it is usually too late to make short-term compensation. Small trickles feeding spawning streams are often not recognized as the rearing habitat that they are and are totally obliterated by logging.

RESPONSE: Regional standards and guidelines provide for the protection of all salmon streams, including spawning and rearing habitat.

COMMENT: If wildlife and fish habitats will need "increasingly refined management measures," why have the current policies in the Area Guide been referred to "Forest planning?" Should not these Area Guide policies be further refined instead of merely reinstating them in a Forest Plan?

RESPONSE: All Area Guide policies for wildlife and fish still apply; some have been retained to guide management at the Forest planning level, while others are administered at the Regional level. Any needed refinement of those policies that are administered at the Forest level will be done through the Forest Plan, which can be more specific in addressing particular concerns.

COMMENT: High-quality water is needed for fish habitat. The need for water on all parts of the Forests requires data not just for municipal watersheds, but for all watersheds in which development is or will be occurring.

RESPONSE: The original Area Guide policies for monitoring of watersheds have been adopted as Regional Guide policy. The Memorandum of Understanding with the State Department of Environmental Conservation and the U.S. Geological Survey also provides for watershed monitoring.

Conflicts Between the Harvest of Old-Growth Timber and Wildlife Habitat

COMMENT: The old growth and deer issue needs to be addressed; if the issue is not to be resolved through this planning process, where will it be resolved?

RESPONSE: Refer to the revised discussion of the issues in Appendix E of the EIS, where the issue is addressed in detail and the resolution process is outlined.

COMMENT: The issue is currently being handled at the Regional level, and we would expect any direction to come from that level.

COMMENT: We fully support the Boards of Fisheries and Game Joint Resolution #80-80-JB regarding clearcut logging in Southeast Alaska and believe it is time for the Forest Service to respond to public demands and make some of these suggested policy changes.

RESPONSE: Resolution of the issue will proceed at the Regional and Forest levels. Refer to the discussion of the issue in Appendix E of the EIS.

COMMENT: The Sitka black-tailed deer's function as an indicator species is seemingly overlooked in the analysis of the issue. The possibility that other less visible species also are being threatened by a policy of wholesale or accelerated liquidation of old growth is overlooked. The deer's role as an indicator species makes it counterproductive to too closely tailor the old-growth management plan to the specific needs of the deer. Old-growth retention should be developed and established at the Regional level and should address wildlife-related concerns in addition to the black-tailed deer's habitat needs.

RESPONSE: The Southeast Alaska Area Guide and the Tongass Land Management Plan (TLMP) did address this concern. Refer to the discussion of the old-growth issue in Appendix E of the EIS.

COMMENT: It is implied in the Regional Guide that current retention levels are sufficient for wildlife. This is totally misleading. Because of the political nature surrounding the setting of retention levels, needs of wildlife were not considered. It would probably be safe to say that retention levels will sustain a reduced population level.

RESPONSE: The issue of retention is addressed in the Tongass Land Management Plan. Current retention levels are thought to be satisfactory to meet wildlife needs for the planning period. Retention levels will be reviewed as part of the revision of TLMP. Any changes in retention will be made as part of the plan revision process.

Designation and Management of Wilderness

COMMENT: The Forest Service should continue its evaluation, during the planning process, for possible future additions on both forests to the wilderness system in Alaska.

COMMENT: This Guide appears to be a mandate to stress resources development for commercial purposes with little concern for other current and potential uses of National Forest System lands. The Alaska Lands Act is in need of amendment by Congress. Wilderness is the most important attribute of the National Forests managed by the Alaska Region. The Alaska Lands Act shortchanged the public's wilderness lands in the areas managed by the Forest Service. A total of approximately 18 million acres of National Forest System lands was recommended for designation as wilderness, including lands not currently managed by the Forest Service.

RESPONSE: In accordance with section 708 of the Alaska Lands Act, no additional wilderness evaluation will be conducted on the Tongass National Forest prior to revision of the Tongass Land Management Plan. Wilderness evaluations on the Chugach National Forest are currently being completed as part of the Chugach land and resource management planning process.

Concern About How Much Timber Production can be Sustained on National Forest System Lands

COMMENT: There is concern that the 4.5 billion board feet per decade timber harvest on the Tongass National Forest, mandated by the Alaska Lands Act, is "cast in concrete" in the Regional Guide. The public was concerned that the reports to Congress on the timber supply and demand were not highlighted and that the Tongass National Forest is not capable of sustaining this level of timber harvest.

COMMENT: Congress did not intend that the Southeast Alaska timber industry should operate totally outside of market forces, cutting 450 million board feet per year when demand is so low that it must deflate the price of its products in order to sell them. This interpretation views the requirement for "supply" to be similar to the water "supply" of a reservoir. The supply is there if needed; if not, it becomes part of the supply for the following year. The Tongass is required only to have 450 million board feet available for harvest.

RESPONSE: The Alaska Lands Act requires that the Forest Service maintain the timber supply to dependent industry from the Tongass National Forest at 4.5 billion board feet per decade, not 450 million board feet per year. The reports required by Congress in the Alaska Lands Act, sections 705 and 706, have been highlighted in the final documents. Refer to Chapter 1 of the Guide for more details.

COMMENT: The Alaska Lands Act appropriated \$40-plus million annually to "maintain the timber supply from the Tongass National Forest" (section 705(a)), not for "advance roads and timber stand improvement," as stated in the Regional Guide. While these activities may be components of a program for maintaining the timber supply, there are other important components, such as reforestation of backlogged areas, that should be displayed and discussed in the Regional Guide.

RESPONSE: The Tongass Timber Supply Fund dollars are being used for a variety of activities to maintain the timber supply, including reforestation of backlogged areas. Refer to the discussion of the timber supply issue in Appendix E of the EIS, Regional Guide Appendix D, and the Alaska Lands Act for additional information. Also, see the first and second annual supply and demand reports submitted to Congress as required by section 706 of the Alaska Lands Act. Reforestation of backlogged areas is displayed in the RPA Tables in Chapter 3 of the Regional Guide.

COMMENT: The details of the process for determining "departure" from sustained yields should be outlined.

RESPONSE: An outline of criteria and policies to use in evaluating departures is contained in the National Forest Management Act. The process is stated in Forest Service Manual 1922.31d. This process will be used in the preparation of Forest land management plans to determine whether the maximization of net public benefits can best be met by regulating the planned sale and harvest of timber volume in a manner that deviates from the principle of nondeclining even-flow.

COMMENT: The question of a possible future loss of the Federal subsidy needs to be discussed. How will the timber industry operate? What stumpage will be required? Who will pay for the roads?

RESPONSE: In the absence of an adequate sum to maintain the timber supply at the rate prescribed by law, Congress would be notified, as required by the Alaska Lands Act. Timber harvesting would necessarily fall below that level prescribed by the Alaska Lands Act.

COMMENT: Another issue to be addressed is whether the cheap timber from subsidized Federal sales may not compete unfairly with that from private lands, where the owners have to make a profit.

RESPONSE: A discussion of the log supply from private lands is found on page 27 of the Tongass Land Management Plan Final EIS. Since private landowners are not bound by the requirements of primary manufacture, they appear to have a substantial monetary advantage in the log export market.

COMMENT: The Forest Service has been overharvesting in high volume stands from what was scheduled in the Tongass Land Management Plan.

RESPONSE: It is too early in the life of the Tongass Land Management Plan to make assumptions with respect to overharvesting any stand and volume class, since scheduling takes place over the 10-year life of the Plan. While this has been the trend in the early years of the Plan, it is expected that balance will be achieved with added investments and improved technology permitting the harvesting of stands of lower quality with increasing regularity.

COMMENT: Why are not utility logs, cull, or endemic mortality logs included in the allowable cut calculations, especially if they will be harvested? All timber volume utilized by industry, regardless of its classification or the biological growth rate of the stand from which it was obtained, should be included in the allowable sale quantity. Volume from commercial thinning should also be included in the sale quantity.

RESPONSE: This subject is discussed in the revised issue statement in Appendix E of the EIS, the Tongass Land Management Plan, and the first and second annual timber supply and demand reports to Congress. Please refer to these documents for information.

COMMENT: Is the Tongass Land Management Plan assumption of 36 million board feet annually holding?

RESPONSE It is assumed that the comment is referring to the estimated annual supply of pulp wood from private lands in Southeast Alaska. A discussion of the assumptions of timber supply from non-Forest Service lands is included in the first and second annual timber supply and demand reports to Congress.

COMMENT: The Regional Guide did not recognize that Alaska is not subject to section 6(k) of the National Forest Management Act, which calls for identification of lands not suitable for timber production in Forest Plans based on physical, economic, and other pertinent factors.

RESPONSE: Section 705(a) of the Alaska Lands Act states, in part, "The Congress authorizes and directs that the Secretary of the Treasury shall make available to the Secretary of Agriculture the sum of at least \$40,000,000 annually or as much as the Secretary of Agriculture finds is necessary to maintain the timber supply from the Tongass National Forest to dependent industry at a rate of four billion five hundred million foot board measure per decade." Section 705(b) authorizes and directs the Secretary of Agriculture to "establish a special program of insured or guaranteed loans to purchasers of National Forest materials in Alaska to assist such purchasers in the acquisition of equipment and the implementation of new technologies which lead to the utilization of wood products which might otherwise not be utilized." Section 706(b) also authorizes funding for the loan program and other administrative details. Section 705(c) states, "Within three years after the date of enactment of this Act, the Secretary shall prepare and transmit to the Senate and House of Representatives a study of opportunities (consistent with the laws and regulations applicable to the management of the National Forest System) to increase timber yields on National Forest lands in Alaska." Section 705(d) states, "The provisions of this section shall apply notwithstanding the provisions of section 6(k) of the National Forest Management Act of 1976 (90 Stat.2949)."

COMMENT: Recent reinventories strongly suggest that harvest levels set from the timber inventories of the Tongass Land Management Plan are overestimated.

RESPONSE: Timber resource inventories are updated on a continuing and periodic basis (every 10 years) in accordance with statistically reliable samples of stand conditions in the field. The statistical sample is reliable on the average; it is not necessarily accurate for every acre on the ground. "Reinventory" data from any specific project cannot be compared to the statistical average.

Concern About Economic Development and Social Stability

COMMENT: Hunting, sport fishing, trapping, wildlife viewing, and photography are a substantial source of income and should logically be considered an industry or identified as an important entity to economic growth.

RESPONSE: Sport wildlife and fish use has been traditionally considered a nonmarket output because of its public ownership and lack of a market mechanism to control its use. Consequently, it is difficult to determine a fair market value. However, we know that wildlife and fish use supports the tourism, transportation, and support services industries. The extent of this contribution is presently uncertain, but it will be researched as funding and priorities permit.

COMMENT: The timber industry, rather than contributing stability to some communities, has caused a boom and bust situation. The Tongass contributes nothing to the national supply of wood products. It has to be viewed in the context of being part of the timber industry of the Pacific Northwest. As long as we continue to export raw materials, pulp, and cant, and to import finished lumber and "newsprint," mostly from Canada, it is highly unlikely that we can have anything but a deficit in the balance of trade.

RESPONSE: The timber industry has brought greater economic stability to Southeast Alaska by diversifying the economic base. Like other resource industries in Alaska, such as minerals, fisheries, and tourism, the timber industry has employment levels. Less seasonality is exhibited in pulping and sawmilling compared to logging because of primary processing regulations that require processing into pulp or cant before export. These regulations require that logs harvested from National Forest System lands be processed into pulp or cant, with minor exceptions, such as Alaska yellow cedar. While Alaska's market share in Japanese markets is relatively small, it has been one of the most stable historically. This suggests that long-term, dependable National Forest timber supplies for Pacific Rim countries help stabilize the timber markets and local production levels.

In terms of international balance of trade, timber products imports and exports are only one small portion of the total exchange. Prices for each raw, intermediate, or finished product; the foreign currency exchange rate; and trade policies and restrictions determine the balance of trade. Processing of only one particular line of product is but one component of this trade and is easily masked by other products and market conditions.

COMMENT: It would seem that more jobs would be created if logs harvested on the Tongass were also milled and sold in Alaska, rather than exported in the round or as cants to Japan.

RESPONSE: Timber from National Forest System lands in Alaska is subject to primary manufacture requirements. Exceptions exist from time to time with respect to cedar where there is no Southeast Alaska market. National Forest logs sawn into cants meet requirements for primary manufacture in Alaska. To require further manufacturing and finished product sales in Alaska would require a change in the regulations. Current National Forest timber supplies under contract would far exceed Alaskan needs. The market is too small and dispersed to support a local domestic finished lumber products industry.

Alaska is not competitive with Pacific Northwest suppliers in the U.S. domestic lumber markets. The Pacific Northwest and British Columbia suppliers would be more competitive in finished lumber markets in Japan.

COMMENT: To say the timber industry shows potential for economic growth is stretching it. Mills are closed in Wrangell and Ketchikan, and there are questions about the timber supply holding out.

RESPONSE: Worldwide demand for quality softwood timber will undoubtedly rise. Alaska remains one of the largest softwood surplus areas in the world. Future use of this resource will be determined, in part, by how competitive Alaska will be with other suppliers.

Currently, markets for Alaska timber products are down, particularly in Japan. However, these market conditions are much stronger relative to the situation in the lower-48 States. In addition, Alaska's share of the Japanese market has been one of the most stable in comparison to domestic production and other importers. Timber supply in Southeast Alaska will be monitored and reported to Congress on an annual basis. (See Guide, Appendix D.) Currently, no information suggests that the timber supply planned in the Tongass Land Management Plan is not feasible to attain.

Development of Energy and Minerals

COMMENT: Mineral resources have been viewed as being within somebody else's jurisdiction, and specifically, as a force opposing objectives as defined by the Forest Service. The Regional Guide and Draft EIS do not adequately recognize the need for implementing the multiple-use concept for exploration and development of mineral resources. The Forest Service should manage mineral resources.

RESPONSE: The Forest Service recognizes development of energy and mineral resources as a multiple use of National Forest System lands. A statement has been added to the Summary of the Analysis of the Management Situation, Chapter 2 of the Regional Guide, stating that all National Forest System lands are open to mineral entry and location, unless specifically withdrawn, and are available for mineral leasing, unless an environmental analysis determines mineral leasing to be incompatible with other resource values. The Regional goals and objectives for minerals, listed in Chapter 3 of the Regional Guide, display the Forest Service's commitment to the development of mineral resources. However, unlike the management of renewable resources, the development of energy and mineral resources is at the initiative of the private sector. The Forest Service reviews and approves permits that involve surface disturbance in the exploration and development of locatable minerals. The Forest Service makes recommendations to the Bureau of Land Management for mineral leasing. The Forest Service directly processes prospecting permits for oil and gas development. For other activities on mineral leases, the Forest Service makes recommendations to the U.S. Geological Survey.

COMMENT: Mineral exploration and development will increase, adding to the economic base of Alaska and decreasing the quality of the environment. With the current drive to open up an increasing amount of our public lands for mineral and energy development, the potential exists that the value of other resources will not be considered equally. Mineral development should not become the dominant use of Forest Service lands in Alaska. The Regional Guide should require a Regional environmental assessment to determine the impacts of increased mineral and energy development.

RESPONSE: Any developments are best handled on a project-by-project basis, giving due regard to possible cumulative effects. Environmental disclosure documents will be prepared within the Region for minerals developments, such as the Greens Creek Project on Admiralty Island.

COMMENT: The Regional Guide suggests that no new policy or guidance is necessary on energy and minerals development in Alaska's National Forests. The Alaska Lands Act withdrawals, which provide for the development of the Quartz Hill molybdenum deposit and the Greens Creek Project on Admiralty Island, do not resolve the environmental conflicts per se. The Regional Guide should provide substantive guidance regarding how the individual forests should manage and monitor these mineral development projects to minimize their adverse environmental consequences. The Regional Guide should examine alternative policy sets for minerals.

RESPONSE: Site-specific environmental impact statements are associated with the two above-named projects. Appropriate mitigation measures and other detailed management direction are developed through this process.

COMMENT: It is especially important that the Forest Service recognize the need to provide access to forest lands to support offshore exploration and development activities.

RESPONSE: The Forest Service recognizes that industry may request access to and use of National Forest System lands in support of offshore mineral development. Each application will be approached on its own merits.

COMMENT: An automatic review of potential hydroelectric sites should be included in the EIS. It is appropriate to address, on a regular basis (the 15-year Federal Regional Plan review cycle should be adequate), the possible development of critical public facilities, such as hydroelectric power generation stations.

RESPONSE: The Regional Guide is not the appropriate place to address potential hydroelectric sites. These must be addressed on a local planning basis. Such sites may be addressed in Forest Plans if they have been identified by the appropriate Federal, State, and local agencies.

COMMENT: The planned development of energy resources on the Stikine and Iskut Rivers are not adequately addressed in the Regional Guide.

RESPONSE: The issue is not appropriate for the Alaska Regional Guide. Proposed developments on the rivers are being addressed by various government officials and agencies. Under the Alaska Lands Act, a study is being conducted in consultation with the Canadian Government on the Act's effects on the ability of the Canadian Government to obtain access in the Stikine River Region. The report of this study must be submitted to Congress by December 2, 1985. It must include an analysis of the need for access and the social, environmental, and economic effects of various forms of access.

COMMENT: Concern that neither document adequately recognizes the need for implementing the multiple-use concept for exploration and development of the hydrocarbon potential that may exist in the Region.

RESPONSE: The Forest Service recognizes development of energy minerals as a multiple use of National Forest System lands. However, these nonrenewable resources are not managed in the same manner as renewable resources. Once they are extracted, they cannot be replaced. As the government has placed the primary responsibility for the leasing of mineral resources with the Bureau of Land Management and the U.S. Geological Survey, they have received less attention in the Regional Guide than those activities under the direct and total control of the Forest Service.

COMMENT: The Regional Guide should require a Regional environmental assessment to determine the effects of increased mineral and energy development. The assessment should include a discussion on how the adverse effects will be mitigated.

RESPONSE: It is not practical to attempt to prepare a Regional environmental assessment on the total effects of still unspecified increased mineral and energy development. Rather, a series of environmental disclosure documents will be prepared within the Region for a variety of mineral developments, such as the Greens Creek Project on Admiralty Island, Quartz Hill in Misty Fiords, and other development prospects as information and/or interest in development is identified.

Changes in Recreation Opportunities and Visual Resources

COMMENT: The public demands recreation to be given equal treatment as a Forest resource. Recreation is treated only incidentally. As far as Alaska is concerned, the future welfare of the State depends upon preserving the qualities that have made it unique--free use of space. Recreation plans for primitive recreation trails, mountain routes, boat landing spots, wild lake shores, etc., seem to be lacking. Are they not part of the resources?

RESPONSE: The first statement in the above comment has been added as an assumption in the Summary of the Analysis of the Management Situation, Chapter 2 of the Regional Guide. The recreation policies contained in Chapter 3 of the Guide address recreation on a Regional level, considered equally with other resources. Guidelines for specific types of recreation plans are provided in Forest Plans, as necessary.

COMMENT: There is no discussion of potential conflicts between recreational use and wildlife habitat.

- RESPONSE: This potential conflict has been added to the assumptions under Recreation in the Summary of the Analysis of the Management Situation, Chapter 2 of the Regional Guide. It is also mentioned in the old-growth and wildlife habitat use.
- COMMENT: Forest Service recreation policies on lands classified as LUD II should have been discussed.
- RESPONSE: Recreation policies for LUD II lands would only apply to the Tongass National Forest, as LUD's were not used on the Chugach. They will be addressed in future updates of the Tongass Land Management Plan, as appropriate. Most of the recreation policies in Chapter 3 of the Regional Guide do apply to LUD II areas.
- COMMENT: Visual quality goals, objectives, and guidelines have been ignored in the Regional Guide. They need to be addressed in the Regional Guide, or the impact of ignoring the value of Southeast Alaska's scenic quality needs to be addressed in the EIS.
- RESPONSE: Guidelines for visual resource management are provided under Recreation in Chapter 3 of the Regional Guide. Specific visual quality goals and objectives are established at the Forest planning and project planning levels.
- COMMENT: Attempting to plan, based on the public's expectation of what is visually attractive, is the exponent of speculation.
- RESPONSE: The Forest Service is not attempting to measure people's "tastes," but is attempting to quantify where and to what intensity use is made of the land by the public. Concentrations of use can be quantified, based upon information with which most people would agree, i.e., travel routes, communities, popular recreation areas, etc. Further, definition is made by analysis of foreground, middleground, and background distance zones as seen from public use areas. Areas less frequently seen allow for more intense development than foreground areas of high-use concentrations. The visual resource management process is regarded by most people as a highly acceptable method for categorizing areas of visual sensitivity.

Transportation Connections Between Communities and Management of Potential Transportation Corridors

- COMMENT: The Forest Service equates transportation with roads. Why all the emphasis on roads? Increased population will not increase the need for roads, except within communities. The Forest Service should take no initiative in connecting highways.
- RESPONSE: Roads are necessary to transport goods and services in many areas of the Forests. The need, or lack of need, for roads because of increased population will be addressed by the State of Alaska, as it is responsible for planning roads connecting with population centers.

- COMMENT: In general, transportation corridors subtract land areas for timber production and other resource use. The Forest Service should construct only the minimum amounts of roads needed for access to the various resources. Water and air transport normally have less effect on forest resources and should be used whenever feasible.
- RESPONSE: The Forest Service attempts to minimize the miles of road constructed for a number of reasons. Corridors should not be equated with roads. (See Glossary, Appendix A of the EIS for definition.)
- COMMENT: Transportation corridor development is not needed by our economy.
- RESPONSE: Transportation corridor development on the National Forests is in response to direction provided by the National Forest Management Act. Corridor development to provide access to mineral developments, harvest of timber, and similar activities is expected to continue on the National Forests. The corridor concept helps to avoid an unplanned proliferation of roads and utilities.

Need to Revise Southeast Alaska Area Guide Policies to Conform to New Legislation and to NFMA Regulations, to Permit More Uniform Application on the Ground, and to Respond to Public Issues

- COMMENT: The Southeast Alaska Area Guide was "gutted" by the Regional planning process. The Area Guide was more than modified in a "minor" way. Most, if not all, of the specific management prescriptions aimed at solving "major public issues" have been referred to Forest planning. The lack of guaranteed specific prescriptive policies will severely affect management of Federal land. The drastic change in the direction of the standards and guidelines constitutes a major Federal action. As such, all of the changes to the Area Guide standards and guidelines should be reviewed in the EIS process.
- COMMENT: What was the use of past extensive public and private industry involvement in the development of the Southeast Alaska Area Guide, if the policies formed are not necessary or to be utilized?
- COMMENT: It is unclear what policies have been relegated to Forest planning. What does "referred to Forest planning" mean?
- COMMENT: If local plans are indeed the "basic building blocks for Regional planning," why have most of the Area Guide standards been eliminated?

- COMMENT: Reviewers (the public) feel the Forest Service develops good plans and policies, but "these appear to get lost in the implementation process." This has been happening with specific prescriptive policies that are very easy to implement. What will happen when the Region is trying to implement the ambiguous policies suggested in this Draft Guide?
- COMMENT: The Area Guide policies that have been rewritten for "clarification" have become less specific in nature and commonly delete analytical or procedural guidance. Area Guide policies that are to be made less specific should be justified other than by the desire to "clarify" them.
- COMMENT: Why are the Area Guide policies considered inappropriate for Regional planning since they represent state-of-the-art knowledge of Forest resource management, as determined through extensive State, public, and Forest Service discussion, and since the management standards and guidelines found appropriate for the National Forest Management Act (Regulations Section 219.27) are of a prescriptive and detailed nature.
- COMMENT: By replacing specific policies with broad generalizations, the public will have to repeat the planning process instead of refining it through a revision of the Tongass Land Management Plan.
- RESPONSE: The discussion of the Area Guide concern has been revised in the EIS Appendix E. In response to the public comments, the treatment of the Area Guide in the Regional Guide has been changed. All Area Guide policies that were modified through the planning process were reevaluated, and many more have been retained. The distinction between Forest level and Regional level has been clarified. Refer to the discussion in EIS Appendix E and the policy cross-reference in EIS Appendix B for further discussion of this comment.
- COMMENT: The Guide states that development effects on fisheries can be minimized through implementation of existing policies and standards and guidelines. It is these existing standards and guidelines, embodied in the Southeast Alaska Area Guide, that have been eliminated from this document.
- RESPONSE: While some of the Area Guide fish policies were not incorporated into the Regional Guide, all are retained to guide management of the National Forests at the Forest planning level. Please refer to EIS Appendices B and E for details.
- COMMENT: The review of the prescriptive policies should apply to the Chugach, as well as the Tongass National Forest.
- RESPONSE: The prescriptive policies to be administered at the Forest level do apply to the Chugach. Modification may occur only through the Forest planning process in response to a clearly demonstrated need and with public participation.

COMMENT: At a minimum, the Forest Service should develop an interim document that contains the "deferred" standards and guidelines and outlines the review process to be followed at the Forest level if changes are contemplated. This would avoid confusion as to the standards and guidelines applicability until reviewed and modified by Forest planning.

RESPONSE: Appendix B of the EIS serves as such a document.

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Chapter 2: Alternatives, Including the Proposed Action

The preferred alternative for determining maximum size of created openings has been changed in response to comments. (See new Preferred Alternative E under Maximum Size of Created Openings in the EIS.) Other minor changes were made in the preferred alternatives for determining appropriate harvest cutting methods, dispersal and size variation of tree openings created by even-aged management, and management intensity.

The Draft EIS, which was circulated in August of 1981, contained two policies that are no longer included in this EIS, except in the discussion that follows. The revised NFMA regulations resolved the questions related to these policies at the national level. See "biological growth potential for determining capability of land for timber production" and "unit of measure for expressing mean annual increment," below.

COMMENT: In the Draft EIS, the preferred alternative is not readily apparent.

RESPONSE: In Chapter 2 of the EIS, Alternatives, the preferred alternative for each policy is noted as such and is printed in capital letters to stand out. All references to preferred alternatives are labeled as such throughout the documents.

COMMENT: The Forest Service should consider a reduced annual cut as a viable alternative.

RESPONSE: The Regional Guide and EIS do not display alternative outputs. These were considered in RPA and the Tongass Land Management Plan. Refer to the discussions in Appendix E of the EIS on the Timber Supply issue and in Chapter 2 on Alternatives Considered but Eliminated from Detailed Study for additional information.

Appropriate Harvest Cutting Methods

COMMENT: It is unwise to designate even-aged management as the preferred harvest cutting method, with exceptions for certain conditions. The silvicultural system for each harvest area should be selected after a careful study of the resources in that area.

RESPONSE: The preferred alternative does allow for the use of uneven-aged management to meet management objectives.

COMMENT: Clearcut logging in Alaska has the net effect of destroying the forest for more than 200 years. This seriously alters the hydrology of the land area, decimates the fish populations, destroys the deer, bird, and furbearing animal habitat, and completely destroys the scenic and recreation attributes of the area. Proper selective logging can be done without this wholesale destruction.

RESPONSE: Clearcut logging implemented following the standards and guidelines of the Regional Guide, the Forest-level standards and guidelines from the Southeast Alaska Area Guide, and additional site-specific requirements developed through project plans does not cause "wholesale destruction." Refer to the discussion in EIS Chapter 4, Environmental Consequences, for a comparison of the effects of the harvest cutting methods.

COMMENT: The preferred alternative for harvest cutting methods should include the last two paragraphs from Alternative A, Area Guide.

RESPONSE: The last paragraph from Alternative A, Area Guide, has been included verbatim in the preferred alternative. The essence of the other paragraph has also been included in the preferred alternative.

Maximum Size of Created Openings

COMMENT: The Forest Service should research the possibility of a variance for Southeast Alaska to the National Forest Management Act maximum size of openings of 100 acres for the spruce and hemlock type. One-hundred and sixty acres were suggested as the maximum size.

RESPONSE: A variance is not necessary. The standards and guidelines developed for exceptions to the maximum opening size of 100 acres allow for larger clearcuts when a more desirable contribution of benefits will be produced.

COMMENT: How can the 100-acre clearcuts preferred, which must come from old-growth trees, be beneficial to streamsides and other fish habitat? Temperature rise alone would be enough to cause serious trouble in such large openings. Suggested maximum size of created openings should be 30 acres, which would provide cover for game animals. Another commentor suggested 40 acres as maximum clearcut size.

RESPONSE: The protection of streamside zones required in the Regional Guide standards and guidelines avoids temperature increases. The size of clearcuts has no direct adverse impacts to fisheries resources if the standards and guidelines are followed.

COMMENT: There should be an absolute maximum for exceptions to the 100-acre limit on the size of created openings.

RESPONSE: The Regional Guide interdisciplinary team discussed setting an absolute maximum size of clearcuts for exceptions to the 100-acre limitation and decided there was no basis for setting such a maximum. It must be remembered that the guidelines apply to exceptions to the 100-acre size limit and are not the rule.

COMMENT: Alternative B in clearcut size is not meaningful.

RESPONSE: Alternative B, which establishes a 350-acre limitation for exceptions to the 100-acre limit for the size of openings, is an alternative to A, C, D, and E. See Chapter 2 of the EIS, Alternatives, and Chapter 4 of the EIS, Environmental Consequences.

Dispersal and Size Variation of Tree Openings Created by Even-Aged Management

COMMENT: "Dispersal and Size Variation of Tree Openings Created by Even-Aged Management, (4) Wildlife and Fisheries Habitat." This paragraph does not adequately provide for protection of fish and wildlife as it presently stands. Accordingly, we suggest the comment under this item be modified to read, "Wildlife and fisheries needs over time must be considered, and sale layout will include provisions for the protection and enhancement of fish and wildlife resources and habitat."

RESPONSE: At the project level, an interdisciplinary team addresses wildlife and fish habitat and other resource coordination needs for all timber sale layouts on the forests to ensure that Area Guide and Tongass Land Management Plan direction is met.

COMMENT: Will openings in the forest be blended and shaped to achieve those wildlife habitat objectives?

RESPONSE: The habitat objectives are from the National Forest Management Act requirements for plant and animal diversity, maintenance of viable populations of all native species, and the RPA and Regional goals and objectives for wildlife and fish. These provide for blending and shaping as necessary to achieve wildlife habitat objectives.

COMMENT: Criteria should be established for separation of concurrent clearcut areas.

RESPONSE: These are established in the preferred alternative for when a cutover area no longer is considered an opening. See Chapter 2 of the EIS, Alternatives.

COMMENT: What are "logical harvest units"?

RESPONSE: A "stand" of timber capable of being harvested by a given or known system of technology.

COMMENT: In the Draft EIS, the Forest Service states, "distribution of openings over time will conform to a total compartment multientry layout plan and be scheduled taking into consideration the assumptions used in the analytical allocation model." What is the analytical allocation model? What are its assumptions? What change in policy is represented by this addition?

RESPONSE: For part of the analysis leading to alternative timber supply levels, the Forest Service uses information produced by an "allocation model." Currently, this model is FORPLAN, a computerized linear programming model. Data input to the model include such things as timber volumes per acre over time, cost estimates, land management prescriptions, and retention factors. Output from the model includes a timber harvest level, a harvest schedule, and an allocation of management prescriptions. Given the assumptions in the input data, the model finds the best answer it can, where best can be defined as a maximum volume or minimum cost or highest net return. During the analysis process, the input data "assumptions" are systematically varied, and the output from each computer run (assumptions about harvest distribution and schedule) enters into analysis of trade-offs of different timber supply levels. According to this methodology, the timber supply level, which is selected as a resource target, is valid only for the assumptions associated with it. The "total compartment multientry plan" must not violate these assumptions.

COMMENT: The Forest Service states that a portion of marginal or low volume timber must be included in sale layout because yield calculations from the Tongass Land Management Plan assume 10 percent harvest of marginal stands. Why? Is the goal to maintain steady-state even-flow harvest? If so, then the distribution of volume classes cut should be representative of the Forest land base in general.

RESPONSE: The Tongass Land Management Plan calculations assume given multiple-use objectives and wilderness allocations. The assumptions, which are the basis for calculations that result in an average annual harvest of 450 million board feet, include the need to harvest a portion of the marginal component, as well as increasing the yield of out-years as a result of precommercial thinning and investing in preroads and in advanced logging technology. Related discussion is found in pages 153 and 180-186 of the Tongass Land Management Plan and Final EIS.

State of Vegetation That Will Be Reached Before a Cutover No Longer Is Considered an Opening

COMMENT: The visual and wildlife habitat definitions of when a cutover is no longer an opening appear to be insufficient. Numerous suggestions were made for changing the standard, ranging from 6 feet to 60 feet.

RESPONSE: The height and density of trees depend on the management objectives of the area (forage and cover). The standard has been rewritten in the Guide to include an example. The 5-foot height is a minimum to be used where assurance of regeneration to meet silvicultural goals is the primary objective.

COMMENT: The preferred alternative for when an opening is no longer an opening should not preclude timely harvesting of adjacent old-growth stands if a multiple-entry plan is addressed by the interdisciplinary planning team and future entries are agreed upon at the time of the initial entry.

RESPONSE: Timely harvesting of timber stands is not precluded by the guidelines in the preferred alternative. The achievement of multiple-use objectives over time is a principal objective of total area layout.

Management Intensity

COMMENT: Management intensity should include a snag policy. Since a snag policy would involve both Federal and State health and safety standards, it should be developed at the Regional level.

RESPONSE: Snag management policies are contained in the Forest Service Manual 2400 and 2600. They are addressed in Forest planning.

COMMENT: Under the preferred alternative for management intensity, 7 years is listed as the time required for reestablishment of vegetation; this is beyond the 5 years required by the National Forest Management Act.

RESPONSE: The Forest Service Regions have been directed to establish and implement procedures to ensure regeneration in 5 years. The 7-year provision only applies where an additional examination will be necessary to confirm expectations that reestablishment of vegetation has occurred.

COMMENT: "We are absolutely opposed to advanced roading." "...advanced roading predisposes an area to logging in the immediate future prior to thorough environmental evaluations..." "Advanced roading has also been used to disguise the true cost of particular timber operations from the public". Advanced roading has nothing to do with management intensity. The Alaska Lands Act appropriated \$40 million-plus annually to "maintain the timber supply from the Tongass National Forest" (section 705(a)) not for advanced roads and timber stand improvement.

COMMENT: We are opposed to the Guide's use of advanced roading as a tool for intensive Forest management.

RESPONSE: Transportation access is examined in the Forest planning process and in the individual project planning process. The Tongass Land Management Plan recognized the need to make investments in access to certain lands that were allocated to resource development activities, including timber harvest. This was also recognized in the Alaska Lands Act. Investments in advanced roading are necessary to maintain the timber supply, while providing for other uses, including wilderness. While many people identify roads with timber harvest, a variety of other silvicultural and resource management activities also rely on roads to provide transportation connections to land areas. The environmental disclosure documents for each project involving advanced roading will identify the land management activities and needs. This is done prior to advanced roading. There is a wide range of activities related to the maintenance of the timber supply on the Tongass National Forest. Timber stand improvement and land access activities are only two.

COMMENT: Why isn't the goal to make the management intensity 100 percent of potential?

RESPONSE: Direction was provided by Congress in adopting the RPA Assessment and Program.

Utilization Standards

COMMENT: The preferred alternative for utilization standards should include standards for minimum stump height. The present timber contract clause is inadequate for maximizing utilization of timber.

RESPONSE: Timber sale contracts include the Regional standard for stump-height, which is 12 inches or one-third diameter of the tree at point of severance on the high side. Allowances may be made for safety reasons or for unusual conditions of growth, such as in the case of fluted hemlock.

COMMENT: Utilization standards include beach logs, but some protection of young fish in shallow harbors should be included.

RESPONSE: The salvage of beach logs is covered in timber standards and guidelines of Chapter 3 of the Regional Guide. Standards and guidelines for protection of fish in shallow harbors are included in the Estuaries and Tidal Meadows element in Chapter 3 of the Regional Guide.

COMMENT: What about unmerchantable material? There are some real slash accumulations near roads and landings. Are jack-pot burning, YUM, and PUM addressed? There is delayed regeneration in these areas, and they hinder timber stand improvement efforts. Need more detail on slash management.

RESPONSE: The yarding of unmerchantable material is addressed in the standards and guidelines for Management Intensity, EIS, Chapter 2. Slash management may be a consideration on individual timber sales where visual, wildlife, or fisheries objectives are to be met. Some experimental work has been done from a silvicultural standpoint. However, such treatment has not proven cost effective, given the relatively short period of time required for regeneration, greenup, and decay.

COMMENT: Utilization standards should include the following statement from the Area Guide: "Where compatible with environmental protection objectives, plan sale offerings to encourage competitive bidding in a range of sizes and species that provides opportunities for small businesses."

RESPONSE: Competitive bidding for small businesses is encouraged through the Small Business Administration and Salvage Sale Programs. See standards and guidelines for utilization in Chapter 3 of the Regional Guide.

COMMENT: Alternative C should be the preferred alternative for utilization standards.

RESPONSE: Utility logs and timber harvested from noncommercial forest lands are not included in the allowable sale quantity. Such materials are not defined in National Forest timber inventories. Therefore, there is no basis on which to regulate the systematic annual or periodic harvests under sustained-yield principles. Standards and guidelines concerning timber in Chapter 3 of the Regional Guide indicate that timber harvested from noncommercial forest land is only incidental to meeting other Forest resource objectives. Utility logs are unmerchantable under utilization standards prescribed in the timber sale contract. They are material that would remain in the woods following logging, were it not for the Forest Service's objective to increase utilization.

Biological Growth Potential for Determining Capability of Land for Timber Production (Issue resolved at the National level. Policy removed from Regional standards and guidelines. See RESPONSE below.)

COMMENT: The biological growth potential should be 50 cubic feet per acre per year. Failure to examine reasonable alternatives constitutes a violation of the National Environmental Policy Act.

COMMENT: The Regional Guide should examine the economic trade-offs involved in determining the biological growth potential, or more specifically, the definition of land available for timber production.

RESPONSE: The Forest Service has concluded that a biological growth potential of 20 cubic feet per acre per year or any other national or Regional standard definition of economic suitability for timber production cannot be professionally supported. The revised NFMA regulations, effective November 1, 1982, call for a detailed analysis of all forested lands for the suitability of timber production during the Forest planning process. A definition of suitability will be developed for each alternative analyzed in the Forest land and resource management plan.

COMMENT: The harvesting of National Forest System lands with growth potential of less than 20 cubic feet per acre per year for firewood is permitted. However, no criteria were established for the method of harvest and for the size and shape of any created openings.

RESPONSE: Commercial sales of firewood are permitted on commercial forest land. Methods of harvest and size and shape of created openings are subject to the standards and guidelines contained in the preferred alternative of the EIS and in Forest Plans. District Rangers have the authority to issue sales and prescribe conditions of operation. Firewood is taken for personal use only incidentally on noncommercial forest lands.

Unit of Measure for Expressing Mean Annual Increment (Issue resolved at the national level. Policy removed from Regional standards and guidelines. See RESPONSE below.)

COMMENT: Delaying final harvest until stands reach the culmination of the mean annual increment eliminates the possibility of using shortened rotations as a wildlife habitat management tool. Shortened rotation would have major benefits in maximizing forage production for wildlife species that utilize early successional stages--species like moose, bear, grouse, and deer on little islands. The option to use shortened rotations as a wildlife management tool should be retained.

RESPONSE: Details for management of stands that have not attained culmination of the mean annual increment are contained in Forest Service Manual 2400. This direction provides options for harvesting at ages less than culmination. As stated in revised 36 CFR 219.16(a)(2)(iii), "even-aged stands scheduled to be harvested during the planning period generally will have reached the culmination of mean annual increment of growth ... expressed in cubic measure."

Air Quality

COMMENT: The discussion on air should at least recognize its poor quality in the vicinity of the two pulp mills and near at least one cant mill. It was Forest Service policy in the first place that brought these mills to Southeast Alaska. More is needed than evaluation of local sources. Trees are being damaged and killed in the vicinity of both mills. Airshed integrity already is being violated.

RESPONSE: The Alaska Department of Environmental Conservation is responsible for addressing air quality in the vicinity of pulp mills. As a landholder in the area, the Forest Service will continue to monitor for resource damage and work with the Department and the timber industry to ensure air quality.

COMMENT: Air quality could be improved by more chipping in slash disposal, thus also continuing to build soil quality.

RESPONSE: The slash accumulation in the timber harvest areas of the Southeast Alaska rainbelt historically has not been burned. Burning has been used on the Chugach to enhance moose habitat, since shrubs and grasses respond to fire with rapid growth of young plants, which are favored forage of moose. Chipping in Southeast Alaska is extremely expensive and has not thus far been an economically viable alternative.

Chapter 3: Affected Environment

Chapter 3 of the Final EIS has been changed to provide an overview of the affected environment and incorporates by reference (40 CFR 1502.21) Chapter 2 of the Regional Guide, the Summary of the Analysis of the Management Situation. Minor changes made to EIS Chapter 3 in response to comments to the Draft EIS are now reflected in Chapter 2 of the Regional Guide, which gives a more complete picture of individual resource elements of National Forest System lands in Alaska.

COMMENT: The section on the economic and social setting seems to assume that the effect of Forest Service activities on local communities can best be measured by the changes they will cause in population and in standard measures of economic activity. In most areas of Southeast and Southcentral Alaska, these are not particularly useful indicators. Effects will be much more direct and specific.

RESPONSE: The economic and social setting is described under the human and community development element in Chapter 2 of the Guide, which is incorporated by reference in the EIS. The Forest Service has developed a data base of social indicators (e.g., community services, infrastructure, populations, etc.) and will be using these in social effect assessment efforts. Other measures have not yet been developed by the Forest Service or the State, but

are currently being investigated. Results, if any, will be used in the reports to Congress required by sections 705 and 706 of the Alaska Lands Act.

COMMENT: The discussion of air quality in the EIS implies that the Forest Service will act to protect air quality. In fact, this should be left to the Alaska Department of Environmental Conservation, which should be informed by the Forest Service of any open burning on National Forest System lands in the Region.

RESPONSE: The Forest Service is charged with protection of air quality in carrying out National Forest-related activities. The Department of Environmental Conservation plays a key part in protecting air quality on the National Forests and is responsible for statewide standards addressed in the Regional Guide.

COMMENT: It is stated that deer populations in much of Southeast Alaska are presently low, and that the most significant factors appear to be harsh winters and predation by wolves. What about the reduction in deer winter range carrying capacity because of the loss of old-growth forests to clearcutting?

RESPONSE: The Southeast Alaska Area Guide, the revised discussion of the issue in Appendix E of this EIS, and the Tongass Land Management Plan address this concern. Please refer to these documents.

Chapter 4: Environmental Consequences

This chapter has been revised in response to public comments and to reflect changes in the alternatives, especially the revised preferred alternative for maximum size of created openings. A section on cumulative effects has been added.

COMMENT: The effects of clearcutting that triggers some landslides should be mentioned.

RESPONSE: If appropriate standards and guidelines for project design and mitigation measures are implemented, clearcutting will not trigger landslides.

COMMENT: Specific techniques that are to be utilized for soil conservation should be included in the EIS.

RESPONSE: Specific techniques are included in individual project plans.

COMMENT: The effects on deer of successional stages following clearcutting should be described more fully and referenced to the Forestry Sciences Laboratory and Alaska Department of Fish and Game study. Reentries and the proposed 100-year cutting cycle pose additional problems to deer habitat, which should be addressed.

RESPONSE: These concerns are discussed in the Regional Guide, this EIS, and the Tongass Land Management Plan.

COMMENT: Clearcutting results in the loss of insectivorous birds, which play a major role in natural insect control.

RESPONSE: The interdisciplinary team considers all wildlife habitat needs at the project planning level. Project environmental assessments address preventive or mitigating measures.

COMMENT: The impacts of timber harvest on marine and estuarine fisheries should be described in addition to the impacts of timber harvest on anadromous fisheries.

RESPONSE: The potential impacts, if any, are addressed in site-specific project plans and environmental assessments.

COMMENT: Whether all types of uneven-aged management are more susceptible to windthrow than even-aged management was questioned. It was suggested that, while clearcutting may produce a more windfirm new stand, clearcutting often makes adjacent stands more susceptible to windthrow.

RESPONSE: While the edge of a clearcut may have the potential to unravel following harvesting, considerable effort is made to design harvest unit boundaries with a windfirm edge. Single-tree and group selection harvest cutting methods almost always create favorable conditions for blowdown in Southeast Alaska timber stands. Loss of support of the individual trees removed in uneven-aged management harvest cuttings and damage to roots of these shallow rooted species through repeated cutting predispose uneven-aged stands to blowdown.

COMMENT: There is a need to recognize that a change from even-aged management to a different harvest cutting method that maintains uneven-aged stands will reduce the potential for serious insect attacks.

RESPONSE: The incidence of detrimental insect activity in Southeast Alaska forests during the last half-century is low, relative to coniferous forests at lower latitudes. The abundance of spruce in second-growth stands that have been clearcut may be an advantage, because most of the known pest species in Southeast Alaska prefer western hemlock. Disadvantages attendant to management of uneven-aged stands indicate that, from an insect control perspective, selection cutting should only be considered where a great premium is placed on maintaining uneven-aged stands.

COMMENT: The effects of large clearcuts (100 acres) joined together every 5 to 10 years have not been addressed adequately in the EIS.

RESPONSE: The effects of individual projects are addressed through project planning.

COMMENT: The Forest Service has to face the fact that when the old-growth forest is gone, the good saw logs will be gone with it. There is no use in pretending that the Tongass, on 100- to 200-year rotations, is going to produce good lumber that will be in demand--pulp, yes and particleboard, probably; but these can be produced more easily and cheaply in areas with shorter rotations.

RESPONSE: The 100- to 200-year rotations used in managing the National Forests of Alaska are designed to produce saw logs and meet other multiple-use objectives.

COMMENT: Soil nutrients: It seems logical that a finite portion of available nutrients would be permanently removed with each harvest. While a relatively small amount for one harvest, the cumulative total for several harvest cycles would be quite large. It is doubtful if the natural restoration of available nutrients could keep pace with this rate of nutrient removal.

RESPONSE: Most of the material removed from the site when the bole of the tree (log) is removed is composed of organic material and is the product of photosynthesis. Only a very small part of this material is made up of mineral soil nutrients from the site. Furthermore, soil nutrients are continuously moving through the soil and water system, being leached from the soil into streams and replaced at the site through precipitation and the weathering of geologic materials. Over a rotation period of 100 years and with minimal site disturbances during timber harvest, the small amount of mineral soil nutrients removed in timber harvest would be easily replaced through weathering and precipitation.

COMMENT: There is no discussion on the loss of coho rearing habitat in the last 50 to 75 years of growing cycle of second growth because of increased evapotranspiration and loss of water to the atmosphere.

RESPONSE: Studies to date have shown no change in water volumes in Southeast Alaska streams regardless of changing vegetative characteristics in the vicinity.

COMMENTS ON THE REGIONAL GUIDE

Chapter 1: Regional Planning

Chapter 1 has been rewritten to respond to comments; most changes are in the section on public issues and management concerns.

COMMENT: The issue of public comment is nowhere addressed in the Draft Regional Guide (See Intro. p. 1). I would like to see a statement added that all Draft EIS's, Forest Plans, and Environmental Assessments for all resources timber sales, etc. be sent to all persons on the Forest Service's mailing list.

RESPONSE: Public comments on the Draft Regional Guide and the Draft Environmental Impact Statement are addressed in this appendix and elsewhere in both documents. Almost 5,000 copies of the drafts were mailed to the entire Regional mailing list, eliciting less than 200 responses, including those received after the close of the public comment period. The Regional office and each of the Forest Supervisor's offices maintain mailing lists for various types of documents. It would not be appropriate to send copies of all environmental assessments to all the individual listings on these mailing lists. The costs of duplication and postage would be prohibitive. Also, many individuals do not wish to receive these documents, as evidenced by the number of people who took the time and used their own postage to inform the Forest Service that they did not wish to receive the Regional Guide. Individuals wishing to be on mailing lists for environmental assessments should contact the individual Forest Supervisor's offices for the areas of concern and indicate their desire to receive the environmental assessments.

COMMENT: It is difficult to evaluate the Regional Guide without knowing the alternatives. This information should have been provided. It is requested that subsequent Draft Regional Guides include alternatives and that all Forest Plans include alternatives.

RESPONSE: The EIS includes alternatives for eight standards and guidelines that are included in the Regional Guide. The Regional Guide also displays decisions made in other processes, such as RPA and the Southeast Alaska Area Guide.

Chapter 2: Summary of the Analysis of the Management Situation

Minor changes have been made in the text in response to the comments.

COMMENT: We would like to see the full biological and economic potential of the land evaluated and displayed to the public without reference to multiple-use constraints.

RESPONSE: This type of evaluation is required as a part of the analysis of the management situation for Forest Plans. It is not appropriate for Regional Guides, as Regional Guides are not analyzing or proposing different levels of outputs of goods and services.

COMMENT: The Regional Guide is completely devoid of economic analysis or guidelines for the proposed program. Though the Tongass National Forest is exempt from Section 6(k) of the National Forest Management Act, it does not exempt the Forest Service from its obligation to explain where the money is being invested and what the expected returns are.

RESPONSE: This analysis was conducted in the Tongass Land Management Plan, RPA, and the Draft Chugach Forest Plan. Specific economic analysis is done for the Annual Timber Supply and Demand Report as required by Section 706(a) of ANILCA and in analyses for individual projects.

COMMENT: An inventory of soil types, including the size and frequency of mass movements on each, needs to be done in both developed and undeveloped areas.

RESPONSE: Soil inventory is ongoing on the Tongass and Chugach National Forests. The Forestry Sciences Laboratory in Juneau is conducting research on mass failures.

COMMENT: Forest fertilization: Perhaps fertilization should be reserved for soil types that are known to effectively respond to such treatment.

RESPONSE: Fertilization is used to enrich disturbed mineral soils so conifer seedlings will survive. However, expense as well as lack of documented results limits current use of this technique.

COMMENT: Future development in marginal and sensitive areas must not occur under the assumption that "soil and water quality monitoring and research will suggest new methods for erosion and sediment control." Once new methods are in place, development can proceed.

RESPONSE: Development in marginal and sensitive areas will only occur after soil and water specialists provide state-of-the-art input into the development of all alternatives. This will ensure maximum soil and water protection and bring to Forest management knowledge gained from monitoring and research.

COMMENT: The Regional Guide overemphasizes commercial fishing; more attention should be paid to sport and subsistence fishing requirements.

COMMENT: There is no discussion of the value of and need for subsistence fisheries. This needs to be added.

RESPONSE: The discussion in Chapter 2 of the Regional Guide deals with all facets of fishing, including commercial, sport, and subsistence harvest. Since commercial fisheries have the greatest harvest and data base, that discussion is more detailed.

COMMENT: It is incorrect to state that all eight endangered marine mammals in Alaska are not directly influenced by National Forest management programs. Siting of marine-oriented facilities could have an adverse effect on the feeding or resting of humpback whales.

RESPONSE: The Summary of the Analysis of the Management Situation has been revised to reflect the potential for adverse impacts to those endangered species of whales that use the coastal waters adjacent to the National Forests.

COMMENT: Elaborate on the importance of marine shorelines as highly productive habitat for fisheries resources.

RESPONSE: The Forest Service recognizes that marine shorelines are highly productive habitat for fisheries. Limited information was presented in the Regional Guide as Forest Service management actions have limited potential for adverse impacts to marine shorelines. These impacts are analyzed in project environmental disclosure documents.

COMMENT: The Forest Service admits that fisheries habitat quality and quantity will diminish, but says it will not have an adverse effect on productivity.

RESPONSE: The impacts of timber harvesting change over time. If adverse impacts were to occur, they would not be permanent.

COMMENT: There is a need for research on the value of thinning for wildlife. Is there any documentation of its value?

RESPONSE: There is no documentation of the value of thinning for wildlife at this time. This need will be addressed in the periodic reports to Congress required by the Alaska Lands Act. Also refer to the discussion on Issue 2 of Appendix E of this EIS.

COMMENT: What documentation is there to substantiate the claim that the influence of timber harvest on predator and prey relationships has not been detrimental?

RESPONSE: Refer to the revised discussion of the old-growth issue in Appendix E of this EIS.

COMMENT: The Regional Guide does not recognize the ecological value of insect-eating birds in control of insect pests.

RESPONSE: This issue is addressed through the interdisciplinary planning process at the project planning level.

COMMENT: The Guide does not appear to address the needs of nongame mammals.

RESPONSE: The Southeast Alaska Area Guide and the Tongass Land Management Plan addressed the needs of nongame animals. They are also being addressed in the Chugach Land Management Plan.

COMMENT: Retention factors are arbitrary numbers, a token deference to wildlife resources in devastated areas, such as the northeast portion of Chichagof Island. They are, of course, better than no retention, but they can only support reduced wildlife populations.

RESPONSE: Retention factors are addressed in the Regional Guide and the EIS and were also addressed in the Tongass Land Management Plan.

COMMENT: Wildlife habitat in wilderness will also become more important as the rest of the forest changes.

RESPONSE: This statement may become true in the future.

COMMENT: Estuaries and tidal meadows should be defined; it should be mentioned that they occupy a small amount of land area, yet this habitat is highly productive and is critical to certain types of fish and wildlife.

RESPONSE: Definitions have been included in the Glossary, Appendix A, of this EIS.

COMMENT: Seven hundred million board feet per decade of timber are discussed in the Analysis of the Management Situation as the ultimate harvest goal. Does this include privately owned commercial timber land? Several commentors stated that they did not believe this level of harvest was obtainable. Any long-range projections should state the type and quality of timber to be harvested and also the manner and extent to which multiple-uses will be protected. This is interpreted to mean that all the LUD III and LUD IV and probably most of the LUD II lands will have been cut over by the end of 110 years.

RESPONSE: The Summary of the Analysis of the Management Situation points out the potential yield of stands under management. The 700 million board feet volume illustrated for the Tongass National Forest is based on stand volume table predictions taking into account growth potential under a managed condition for LUD III and LUD IV. It does not include harvest of LUD II areas.

COMMENT: The Regional Guide should address how the Forest Service is progressing in determining or defining the "available land base." The criteria should be given for how the Forest Service determines whether or not the harvest mandate can be achieved. Since this is a major issue in the Region, a separate section should be included in the monitoring and evaluation section in Chapter 3.

COMMENT: A factual portrayal of the latest inventory volumes and how they might extrapolate to the rest of the forest would be helpful. A discussion of the inventory update process to support the congressional report required by the Alaska Land Management Act would be helpful.

RESPONSE: The available land base for the Tongass National Forest was established in the Tongass Land Management Plan. The Chugach Land Management Plan is in preparation and will identify the available land base on the Chugach. Procedures for monitoring the timber supply will be addressed in future updates of the Tongass Land Management Plan. Since the Tongass Land Management Plan data base was largely derived from photogrammetric analysis, Forest Service inventory data will need to be restructured to complement the data storage and retrieval system used in the Tongass Land Management Plan. Provisions for "ground truthing" conditions predicted in the Tongass Land Management Plan and the ability to model significant changes in policy and economics will be employed and incrementally improved. These improvements will be incorporated in the Annual Timber Supply and Demand Report and in the 1985 Status of the Tongass Report to Congress. Ultimately, the improvements will be reflected in the revision of the Tongass Land Management Plan that is scheduled to be completed in 1989.

COMMENT: An additional assumption should be added in the Recreation element: logging roads connected with communities will become key areas for recreation.

RESPONSE: This assumption has been added to the Recreation element in the Summary of the Analysis of the Management Situation, Chapter 2 of the Regional Guide.

COMMENT: Page 37 of the Draft Guide identifies 250-300 miles of road. Page 61 of the Draft EIS identifies road costs at between \$127,000 and \$180,000 per mile. The range of expenditures for Forest Service investment into roading is \$31.75 million to \$54 million. How will this be paid for? How much of this mileage will be added to the National Forest transportation system and how much will it cost to rehabilitate the remainder?

RESPONSE: Most of the road construction and reconstruction is paid by purchaser credits. In 1981, 23.8 miles of road construction and reconstruction were completed by public works contract. An estimated 26 percent of all roads constructed were classified as temporary roads. A recent estimate of the cost of putting a temporary road "to bed" is \$3,750 per mile.

COMMENT: The National Forest Management Act (Sec. 8(b)) and Forest Service regulations (36 CFR 219.27(a)(11)) require that access roads be revegetated within 10 years of the termination of a contract, permit, or lease, unless the road is to be used as a permanent road and is part of the plan for the National Forest transportation system. If the roads are to be used as permanent roads, they should appear in the program outputs. It is doubtful that the construction of 250-300 miles of nonpermanent access roads annually will be either necessary or consistent with law.

RESPONSE: A footnote was omitted from the RPA output tables of the Draft Guide. The tables in Chapter 3 of the Regional Guide have been corrected. Please see the response above for additional information.

Chapter 3: Management Direction

No substantive changes were made to Regional goals and objectives in response to public comments. Forest Planning Direction was revised. The distribution of fisheries enhancement targets to the Forests was changed. Changes were made in the standards and guidelines in response to public comments; these changes included a return to the original wording of many more of the Area Guide policies. Fewer clarifications of Area Guide wording are included as Regional standards and guidelines. Contents of Chapters 3, 4, and 5 of the Draft Regional Guide have been combined in Chapter 3 of the Final Regional Guide.

Regional Goals and Objectives

COMMENT: Fisheries outputs from 1982 to 2000 increase 100-fold. Additional information is requested on how the Forest Service plans to accomplish this.

RESPONSE: Fish habitat enhancement in the Alaska Region benefits five species of Pacific salmon, two species of trout, and one of char. This program involves improving anadromous fish access to new spawning and rearing habitat through instream barrier removal, habitat-creating instream structures, and construction of spawning channels and incubation channels. Streambed and streambank stabilization, bridge and culvert removal, and debris removal continue to improve habitat quality and access. Diversification of the fish enhancement program to include lake enrichment, lake stocking, and spawning channel projects has the potential to increase anadromous fish production from underutilized and barren habitat and to open new fishery opportunities. This diversification reflects new habitat improvement techniques and determinations in production based on species utilization, thus greatly increasing the overall production.

COMMENT: Fish and wildlife targets are given as acre-equivalents. The use of man-days of coordination and a list of projects is preferred.

COMMENT: Regional program outputs make no mention of wildlife productivity, even though the assumptions place great importance on the availability of wildlife. The following additional outputs are suggested: (1) acres of prime wildlife habitat retained in blocks of functional size, (2) areas of prime wildlife habitat destroyed or seriously impaired, and (3) acres of secondary wildlife habitat destroyed or seriously impaired.

RESPONSE: Acre-equivalents are used throughout the Forest Service. The targets displayed in the Regional Guide are those used for RPA. The Regional Guide is developed to provide regionwide standards and guidelines to be used in developing Forest Plans and individual projects. The Guide is developed to provide multi-year direction. As such, the listing of projects is not appropriate in a Regional Guide; proposed and probable management practices are listed in Forest Plans.

COMMENT: The Forest Service is acting "above and beyond the call of duty" required by the Alaska Lands Act, Section 705, by offering a timber supply averaging 464 million board feet per year through 1990, when Congress states that a supply of only 450 must be offered.

RESPONSE: The figures are from the 1980 RPA Program and include the Chugach National Forest.

COMMENT: A breakdown should be given according to the amount of arterial, collector, and local roads to be built.

RESPONSE: While the distribution does vary from year to year, approximately 8 percent of the transportation system is classified as arterial, approximately 35 percent as collector, and the remaining 57 percent as local.

COMMENT: Will it be possible for the Forest Service and the Alaska Department of Fish and Game to "achieve common goals?"

RESPONSE: It may not be possible for the Forest Service and the Alaska Department of Fish and Game to achieve common goals in all cases due to different missions assigned the two agencies. However, the statement is intended as a guideline and an objective.

COMMENT: A fisheries goal should be to actively pursue fisheries research by increasing funding so as to focus on resolving conflicts.

RESPONSE: The goal has been reworded to include research on resolving conflicts. Annual funding levels are set by the Congress through the appropriations process. The Forest Service recommends funding levels for congressional consideration annually and also portrays multi-year program and funding needs in the RPA process. Actual Forest Service funding results from priorities set for the entire Federal Government.

COMMENT: Wildlife will not be truly competitive until hard numerical production targets are specified. Work with the State should be accelerated until this is done. Are there State numerical goals for fisheries and wildlife?

RESPONSE: The Alaska Department of Fish and Game has population goals for fisheries. The State does not have population goals for wildlife. The use of hard population targets is desirable.

COMMENT: The Region's share of Sitka black-tailed deer output is not included. What about goals for retention of existing habitat? Section 219.19 of the National Forest Management Act regulations directs the Regional Guide to maintain or improve fish and wildlife.

RESPONSE: The Regional Guide displays the RPA habitat improvement targets through the year 2015. Habitat targets by species would be developed at the Forest and project planning levels.

COMMENT: How can a goal for threatened and endangered species be "specific to the National Forest resources in the Alaska Region" when there are no threatened and endangered species on National Forest lands in Alaska?

RESPONSE: While there are no threatened or endangered species on National Forest System lands in Alaska, there are at least four endangered species of whales that may inhabit the coastal waters of Alaska adjacent to National Forest System lands. As pointed out by another commenter, Forest Service activities could impact these species.

COMMENT: "Monitor the ability of the Tongass Forest to sustain a 4.5 billion cut and still provide for other resources (ANILCA 706)," is suggested as a goal for the Timber element.

RESPONSE: The timber supply and demand studies and reports required by the Alaska Lands Act were mentioned in the Timber account goals in the Draft Regional Guide. These have been highlighted in the revised goal statements in the Final Guide in response to the public comments.

COMMENT: The major weakness in the Regional Guide is that the planning process, which is mandated by the National Forest Management Act to be articulated in the Regional Guide and then used in subsequent Forest level planning, has not been clearly stated or justified. Since the Regional Guide sets precedence for the implementation of National Forest Management Act direction in Alaska, we are concerned about the lack of uniform direction for future Forest level planning. When does management area analysis occur? Will it take place during the Tongass Land Management Plan or as a management area is opened for development? Since there are no more management area plans, how will the public be able to participate in the revision of standards and guidelines?

RESPONSE: The National Forest Management Act does not mention the Regional Guide. It is the regulations promulgated under the act that require Regional level planning, though there is no requirement that the Regional Guide contain the specifics of the planning process. These are explicitly discussed in the regulations. They are supplemented by planning process guidance in the National Environmental Policy Act (and its regulations),

Regional and Forest policies from the Area Guide and Forest planning direction in Chapter 3 of the Regional Guide. Management Area Analysis was a concept developed through the Tongass Land Management Plan, which predated the Forest Service planning regulations. It now occurs through the annual budget process and project planning. The public is able to participate in the development of standards and guidelines through the Forest planning process.

COMMENT: Development of an integrated resource inventory program is stated to be based upon the present inventory data. The Forest Service needs more and better data.

RESPONSE: This statement in the Regional Guide means that the integrated resource inventory program will use existing data to the extent possible. The information needs assessment will "drive" the process. If new data is needed, it will be collected.

Distribution of Regional Objectives

COMMENT: The distribution of Regional program targets and dollars to Forests and areas lacks economic, social, or environmental analysis and alternative program consideration.

RESPONSE: The Regional Guide did not evaluate alternative target allocations to the Forests because the decision of meeting these targets is more appropriately handled at the Forest level. Forest Plans will evaluate alternatives both above and below the tentative RPA target.

COMMENT: The projected figure for wildlife habitat improvement on the Chatham Area does not agree with what is planned; it is too high. The figure for wildlife habitat improvement on the Chugach National Forest also is too high. Prescribed burning should not be used for wildlife habitat improvement, as it favors certain types of wildlife at the expense of others.

RESPONSE: Prescribed burning is used as a management tool on the Chugach National Forest for wildlife habitat improvement where the management objective is improvement of moose habitat. Whether the RPA projected targets are too high or low is to be evaluated at the Forest level in the Forest planning process. The Forest plans will then provide basic data for the 1985 RPA Program update.

COMMENT: The figure of 15 million board feet decreasing to 10 million board feet is too high for the Chugach National Forest. The figure should be reduced to equal the amount of commercially valuable timber remaining on the Forest after completion of State and Native selections that can be managed on a sustained-yield basis, while providing for some commercially valuable stands to remain for recreational purposes.

- RESPONSE: The RPA target for the Chugach National Forest was established in the RPA process. The Chugach Land Management Plan and EIS will address alternative timber harvest levels for the forest. The draft was released for public review and comment in June 1982. The RPA level displayed in the Regional Guide will be displayed in one of the alternatives in the Chugach Land Management Plan EIS.
- COMMENT: Targets for developed and dispersed recreation use do not match statements under Recreation in the Regional Guide for the Chugach National Forest.
- RESPONSE: The use targets referred to are based on use projections. Whether the use actually materializes as projected depends on whether the assumptions about growth rates in tourism and resident populations are true. In any case, most of the developed site use is low and will continue to be concentrated near population centers, where the cost of constructing, operating, and maintaining such sites can be justified on the basis of actual demands. Accommodation of demand for dispersed use, the predominant form of recreation use on both the Tongass and Chugach National Forests, will be facilitated by the construction of outlying cabins, anchor buoys, etc. The actual number of improvements constructed will depend on available funding. The need for and placement of such facilities will be based on a careful analysis of how existing recreation settings and use patterns will be affected. Due regard for users desiring recreation settings that contain no manmade improvements will be part of the Forest planning process.
- COMMENT: The tables of RPA Program outputs by areas address backlogs. What are the backlogs considered in these tables?
- RESPONSE: The backlogs are the anticipated outputs necessary to restore renewable resources to a satisfactory level of productivity consistent with legal direction. A major component in the Alaska Region is reforestation acres.

Standards and Guidelines

- COMMENT: Local communities should be involved in the planning process long before the point where comment is reduced to the choice between alternatives. If the actions of the Forest Service are going to have an impact on a community, it would seem only reasonable that the Forest Service take action to mitigate that impact. Under existing processes this mitigation is haphazard at best.

RESPONSE: Local communities are involved in the planning process prior to the development of alternatives on all major planning efforts and any other actions that may significantly affect the communities. The Forest Service planning process includes public involvement in scoping to determine issues, concerns, and opportunities and in review of the issues and alternatives. The Forest Service does take actions to mitigate adverse impacts to communities.

COMMENT: The general formula for economic efficiency must be defined to ensure uniform implementation and to maximize State and Federal communication.

RESPONSE: The formula as defined in Forest Service Manuals 1920--Land Management Planning, and 1970--Economic and Social Analysis, is designed to ensure uniform implementation on a National basis.

COMMENT: There were a number of comments about relegating many of the specific policies of the Wildlife and Fish and Estuaries and Tidal Meadows elements to Forest planning.

RESPONSE: The Area Guide policies for these elements have been retained to guide management of the National Forests at the Forest planning level. They may only be modified through the Forest planning process, which involves public participation.

COMMENT: There should be no logging or road building on slopes greater than 75 percent, regardless of approval by the Forest Supervisor.

RESPONSE: There are circumstances when logging and road building can be accomplished on slopes greater than 75 percent. The option should not be foreclosed, but will require Forest Supervisor approval after appropriate environmental impact assessment.

COMMENT: Emphasis should be on protecting existing fish and wildlife habitat rather than improving habitat.

RESPONSE: Emphasis in the fisheries standards and guidelines is on protecting existing habitat. Enhancement of fisheries habitat is primarily to increase habitat, not to improve habitat.

COMMENT: Giving equal consideration to the needs of wildlife habitat management does not ensure that the needs of wildlife will be met. One can consider, then do anything he or she pleases. The Forest Service should give wildlife habitat the treatment asked for by the Alaska Department of Fish and Game.

RESPONSE: The interdisciplinary planning process at the Forest and project levels considers wildlife needs along with other resources. Decisions are based on how to best achieve the mix of outputs to respond to RPA, Regional, and public demand.

COMMENT: Specific guidelines for the method of logging within a Fish Habitat Management Unit should be included in the Regional Guide. The area of special consideration should not be limited to 100 feet on either side of a stream.

COMMENT: 100-foot buffer strips on each side of fish streams should be a management objective. Within 100 feet of streams, fisheries considerations must be paramount, not co-equal.

RESPONSE: Specific guidelines are developed for each Fish Habitat Management Unit at the project planning level. To develop these at the Regional level would be impractical, as the specific circumstances of each project could not be evaluated. Special consideration for 100 feet on either side of a stream is required by the National Forest Management Act regulations (36 CFR 219.27(e)). However, the Fish Habitat Management Unit is not limited to this size. Fish Habitat Management Units are given equal consideration with other multiple uses.

COMMENT: In the Regional Guide, the Forest Service asserts that it considers potential fish streams as fish habitat to be protected as such. As a practical matter, this requires the operator to guess which streams are fish streams, at his peril.

RESPONSE: Fish streams and potential fish streams are identified to the operator in advance by the Forest Service.

COMMENT: Regulatory and management policies cannot increase salmon stocks, although they might reduce the decrease in stocks that logging will otherwise cause. Habitat enhancement can make some contribution to salmon stocks, but it is questionable that it can balance the damage done to natural habitat forest-wide.

RESPONSE: Regulatory and management policies are used to protect salmon habitat and stocks. Enhancement measures are used to increase habitat and stocks. Proper implementation of the standards and guidelines adequately mitigates potential adverse impacts to fisheries resources.

COMMENT: Fisheries guidelines should include, "maintaining a continuous program for detailed baseline data and study, research, monitoring, and assessment."

RESPONSE: Monitoring and assessment is required in the Tongass Land Management Plan and the Chugach Forest Plan. Refer to these documents for details.

COMMENT: The Wildlife Habitat Management Units of the Area Guide should be incorporated into the Regional Guide as Regional direction. The Fish Habitat Management Units and the Estuarine Habitat Management Units were included.

RESPONSE: The Southeast Alaska Area Guide policies are still in place for Forest-level management. The Wildlife Habitat Management Unit is included in the Area Guide policies.

COMMENT: How will wildlife values be weighed? How will such amenity values as wildlife be weighed against commodity values?

RESPONSE: The RPA Program and Assessment consider supply and demand for wildlife and fisheries as well as other commodity values. The various RPA alternatives weigh the tradeoffs between the different resources. The reports to Congress under Title VII Alaska Lands Act will include supply and demand information. The 706(b) report is specifically designed to address the relative success of the resource tradeoffs the Alaska Lands Act legislated for the Tongass National Forest.

COMMENT: Any program requiring leave strips of any particular widths, without site-specific consideration, tends to degrade actual wildlife habitat preservation.

RESPONSE: The interdisciplinary team considers site-specific needs at the project planning level.

COMMENT: U.S. Fish and Wildlife Service research indicates that the 100-meter zone around eagle nest trees is inadequate. The Forest Service needs to bring its policy for protecting nest trees into line with these research findings. Eagles also require perching trees, and these are not always in the immediate vicinity of the nest. These need to be identified.

RESPONSE: The Forest Service works closely with the U.S. Fish and Wildlife Service to ensure the continued abundance of eagles on National Forest System land in Alaska. Forest Service policies for management of bald eagle habitat may be revised as new conclusive information becomes available. Perch trees are provided for in the current policy.

COMMENT: The section addressing plant and animal diversity needs clarification.

RESPONSE: The National Forest Management Act regulations provide adequate direction for Regional Planning. Additional direction for diversity will be provided at the Forest level through the Forest planning process.

COMMENT: The Regional Guide does not provide for plant indicator species.

RESPONSE: A sensitive plant species list is not complete at this time for the Alaska Region. Sensitive plants fall under the Regional Guide standards for selection of indicator species. (See Chapter 3 of the Regional Guide, Standards and Guidelines, Wildlife element.)

COMMENT: The Forest Service states as a policy, "achieve and maintain, where possible, the productivity of commercial timber lands at 90 percent of their productive potential level of growth." Does investment in timber stand improvement bear a relation to outputs? Is the Forest Service authorized to spend more on timber production improvement than is reflected in increased harvest revenue?

RESPONSE: Yes, in both cases, the Tongass Timber Supply Fund permits preroaded of marginal lands, which otherwise would be deficit sales. In terms of precommercial thinning, 34 million board feet annually are expected in the allowable cut effect. See the Alaska National Interest Lands Conservation Act, Section 706(a) Report Number 1, "National Forest Supplies Added Investment" for further detailed information.

COMMENT: Standards for Alaska's hardwood forest types: Change to say that the Forest Service will not prescribe management objectives for noncommercial forest lands that interfere with plant diversity or natural succession.

RESPONSE: The standards and guidelines for Alaska's hardwood forest types are directed at commercial forest lands only; they do not apply to noncommercial forest lands.

COMMENT: The following are proposed as additional policies: An effort will be made to encourage private and State timber to be processed in the local market, thus relieving pressure to maintain dependent industry wholly from a National Forest timber base. When a Forest action affects a local community and the effects could be mitigated by cooperatively working with the State or private interests on an alternative facility, the cooperative route will be taken.

RESPONSE: The State and Private Forestry Program works with State and private sources in an effort to ensure adequate processing and marketing of local products. The capital costs for such improvements may, however, preclude the advent of local processing facilities.

COMMENT: The Regional Guide should include a graduated plan not to exceed 10 years to eliminate and exclude foreign ownership of companies harvesting timber on Alaskan lands.

RESPONSE: Development or consideration of such a policy is outside the scope of Regional planning.

COMMENT: The Regional Guide should include a program of replanting the harvested areas within 6 months of harvest. The cost of this should be carried by the harvesting company.

RESPONSE: Artificial regeneration is prescribed when natural regeneration is not successful. Refer to the discussion of Management Intensity in the EIS and the timber standards and guidelines in Chapter 3 of the Regional Guide. The cost of planting is included in stand improvement plans for individual timber sales, where the environmental analysis indicates conditions that may preclude natural regeneration. Additional charges per thousand board feet harvested are included and collected above stumpage.

COMMENT: No mining should be allowed in areas used by anadromous fish or in areas of high value resident fish.

RESPONSE: Mining may be allowed in areas used by anadromous fish and resident fish, with adequate protection provided by the standards and guidelines for fisheries.

COMMENT: Why should blasting that adversely affects spawning beds be allowed?

RESPONSE: Blasting that adversely affects spawning beds would be allowed only after trade-off analysis and a decision that such blasting would produce the best combination of benefits for the public in the long term. Adequate mitigation of the adverse affects would be included.

COMMENT: Trails are not needed in dispersed recreation areas and wilderness on the Chugach National Forest.

RESPONSE: This issue is not appropriate for the Regional Guide; it should be addressed in the Chugach Forest planning process.

COMMENT: Consideration needs to be given to the management of those areas classified as LUD I in the Tongass Forest Plan and not included in the Alaska Lands Act as wilderness.

RESPONSE: Management of the LUD I areas not designated as wilderness is an issue to be resolved in a future update of the Tongass Land Management Plan. It will be considered with public participation. In the meantime, these areas have not been automatically assigned to any other land-use designation.

COMMENT: Motorized use may only be permitted in areas where it occurred before designation as wilderness; not "may be prohibited or restricted in designated areas."

RESPONSE: The Alaska Lands Act (section 1110) states that motorized access is permitted for "traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the conservation systems units . . . and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area."

- COMMENT: Permits for special-use cabins in wilderness should be revoked as quickly as possible. They degrade the quality of the wilderness.
- RESPONSE: The Alaska Lands Act provides for the continuation of existing special-use permits for cabins in section 1303(d).
- COMMENT: Tent platforms lead to garbage and trash problems on the Stikine River. This does not seem compatible with wilderness objectives.
- COMMENT: Add new policies to the wilderness account: Forest Plans will clearly spell out the criteria to be used in determining where new cabins and shelters may be built for the protection of public health and safety. Cabins will not be built in proposed or formal wilderness areas unless a clearly established need for public health and safety has been met. Cabins will not be located in or adjacent to anchorages or in the vicinity of established tent camping sites. All cabins will be screened visually as much as possible.
- When aquaculture projects are considered in proposed or existing wilderness areas, a Forest Service expert in wilderness management will be part of the interdisciplinary team developing the aquaculture EIS and in monitoring the construction and operation of the aquaculture site.
- RESPONSE: The Alaska Lands Act provides for these on a case-by-case basis. Forest Plans and individual wilderness plans will determine the level of development that will be permitted in individual wildernesses. See Appendix C of the Regional Guide for the Forest Service response to similar concerns expressed by the State of Alaska.
- COMMENT: No pesticides or herbicides should be used on the Tongass National Forest. Silvicultural manipulation or biological controls should be used as appropriate to each situation, but if neither is appropriate, then the problem should be allowed to run its course.
- RESPONSE: Standards and guidelines for the application of herbicides and pesticides are contained in the forest pest management element in Chapter 3 of the Regional Guide.

OTHER COMMENTS

- COMMENT: The entire Draft Regional Guide and EIS have a pro-logging bias and deemphasize fish, wildlife, wilderness, and aesthetic values of the forests. The fact that a highly qualified wildlife biologist, recreation planner, or wilderness biologist did not participate on the interdisciplinary team that prepared the Draft EIS is a clear reflection of this.

RESPONSE: The Regional Guide interdisciplinary team did include a specialist in recreation and wilderness management. The titles used by the Forest Service do not always reflect the actual areas of expertise of employees. Several professional wildlife biologists participated in the development of the Regional Guide. Dave Dunaway was added as a member of the core interdisciplinary team for preparation of the final documents. (See Chapter 5 of the EIS.)

COMMENT: From all indications, the 16 percent or 2,746,000 acres (on the Tongass) currently being managed to limit road building and development (LUD II areas) is going by the wayside. The Forest Service has indicated these areas will be reclassified for timber during the revision of the Tongass Forest Plan.

RESPONSE: Reallocation of the LUD II lands on the Tongass National Forest to allow for timber harvest activities is not an issue to be addressed in Regional planning. It is an issue to be addressed during the revision of the Tongass Land Management Plan. However, there is no information available at the present time to suggest that there will be a reallocation of LUD II lands. The National Forest Management Act regulations procedures will be followed for revision of the Forest Plan.

COMMENT: The Guide fails to address the issue of the Reid Brothers timber sale lawsuit. The issue of cancelling the 50-year timber sale contracts should be addressed. The National Forest Management Act, section 14 (e)(1), (2), (3) require the Secretary of Agriculture to take such action as he may deem appropriate to obviate collusive practices. The Regional Guide should address how the Forest Service intends to prevent such abuses in the future.

RESPONSE: The Reid Brothers lawsuit is not a Regional planning issue. Whether remedial action is required will be determined by an investigation in progress. The National Forest Management Act contains requirements for administering the long-term sales in Alaska.

COMMENT: The inclusion of soil types in the Research Natural Area System, such as those developed in the soil-ecosystem classification, should be included as criteria in many of the identified plant communities. Most crucial over this planning cycle should be designating research natural areas having the various subtypes of the F1 soil-ecosystem in the Sitka spruce-western hemlock forest type.

COMMENT: Southeast Alaska is ideally suited to studying the environmental limits of many plants, including commercially important trees, since so many reach their northern limits in the Region. Some geologic types are particularly in need of representation in the research natural area systems.

RESPONSE: The Forest Service believes the criteria developed (see Appendix A of the Regional Guide) for research natural areas will incorporate representative examples of the various subtypes of the F1 soil-ecosystem and important geologic types.

COMMENT: Neither the Regional Guide nor the Draft EIS mentions Alaska's federally approved Coastal Zone Management Program. The Final Regional Guide should provide guidance to the individual forests on how they should comply with Alaska's Coastal Management Program.

RESPONSE: The Coastal Zone Management Act of 1972, as amended in 1976, provides that Federal activities that may directly affect the coastal zone must be consistent to "the maximum extent practicable" with approved State coastal management programs. The State of Alaska, Office of the Governor, and the Alaska Region of the Forest Service have signed a Memorandum of Understanding that provides guidance on how the consistency provision of the Coastal Zone Management Act will be applied. This direction is adequate for the forests. A summary of State and Federal legislation has been included in Appendix B of the Regional Guide.

COMMENT: Logging high-volume old growth on LUD III and LUD IV lands can, at current levels, threaten the ability of the Forest Service to ensure preservation of the current quality of wildlife and the wilderness character on LUD I and LUD II lands.

RESPONSE: What happens on LUD III and IV lands should not directly affect LUD I and LUD II lands. Most of the LUD I lands allocated in the Tongass Land Management Plan were formally designated as wilderness by Congress in the Alaska Lands Act. The LUD II lands are still being managed primarily for recreation and wildlife.

COMMENT: Modification of primary manufacture requirements. Changing 8-inch nominal to 12 3/4-inch will provide the opportunity to open new markets and improve industry's position in present markets.

COMMENT: The Regional Guide needs to address the problem of forcing low-quality wood on the sawmills.

RESPONSE: These are not issues for the Regional planning process. They will be considered in the opportunities to increase timber yields report under section 705 of the Alaska Lands Act.

REPRESENTATIVE LETTERS

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

August 13, 1981

Re: Draft Alaska Regional Plan

RECEIVED
AUG 18 1981

FOREST SERVICE O.I.

Mr. John Sander, Regional Forester
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sander:

Thank you for providing us with an opportunity to review and comment on the Draft Alaska Regional Plan. We also appreciated the opportunity to communicate and work with the initial IDT who scoped the plan.

We feel that the Forest Service has come a long way in recognizing and adopting a posture on transportation as a public issue and natural transportation corridors as a resource. The attention to corridor planning has been evident over the past year in reviewing the various forest management plans throughout southeastern Alaska.

There are a couple of specific comments I would like to make. We feel it useful to more accurately present the resource analysis for transportation beginning on page 59. We agree that the State does have responsibility for "planning, project development, design and construction" of regional highways and facilities. However due to budgetary constraints and Federal policy, the Federal transportation agencies are assuming less of a role in the development of transportation facilities.

We suggest that the references to the Federal Highway Administration and the Federal Aviation Administration be deleted.

In the same paragraph, it is stated that the primary purpose of State highway systems is to provide intercommunity access regardless of land and resource allocations. We would like to suggest deletion of the phrase, "regardless of land and resource allocations." We do not believe that decisions can be made with respect to the location of State transportation and facilities by treating those factors independently. A broader policy issue that has surfaced and that is being addressed is the question of what is the appropriate State role as a provider of public goods and services to support private resource development.

State of Alaska
Department of Transportation
and Public Facilities
Southeastern Region
P.O. Box 3-1000
Juneau, Alaska 99811



United States
Department of
Agriculture

Soil
Conservation
Service

Professional Center - Suite 129
2221 East Northern Lights Boulevard
Anchorage, AK 99504 (907) 276-4246

August 21, 1981

John A. Sander
Regional Forester
Attention: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

The SCS Alaska has the following comments on the DEIS for the Alaska Regional Plan:

1. Page V, Item 5, What is Q18?
2. Page VI, Item 9, last line, "Practicable."
3. Page 10, All readers will not know what RPA is.
4. Page 13, Alt. A, officer "one."
5. Page 31, "Annual precipitation range from 100-300 inches". Snowfall has been measured at over 500 inches per year. Is this referring only to higher elevations?
6. Page 31, Under Water, Runoff for Southeast at 95 inches seems reasonable, however runoff in Southcentral would average about 20-40 inches.

Weymeth E. Long

Weymeth E. Long
State Conservationist

RECEIVED
AUG 27 1981

FOREST SERVICE O.I.

Sender-Cook
August 13, 1981
Page 2

Finally, the Department recognizes the concurrent time frames of the passage of the Alaska National Interest Lands Conservation Act (ANILCA) and the completion of the Regional Plan will fully incorporate the provisions of ANILCA. At this time, we would like to see the inclusion of Title XI Transportation and Utility Systems, in and across and access into Conservation Units into the analysis found in Appendix D.

Again I appreciate the opportunity to work with the Forest Service in the development of the Regional Plan. I look forward to continued participation in the Forest Service's planning process.

Very truly yours,

Morton J. Cook
Morton J. Cook, P.E.
Regional Planning Manager

HJC:DW:pm

cc: Bruce Baker
Charlotte Chastein
Mike Cyrus
Mark Ricky

5

5



Louisiana-Pacific Corporation

Ketchikan Division

Post Office Box 6600
Ketchikan, Alaska 99901 U.S.A.
Telephone 907-225-2151
Telex 099-55-251
Answer back KAYPULCO KET

September 1, 1981

RECEIVED
SEP 3 1981

FOREST SERVICE O.I.

USDA Forest Service
Alaska Region, Office of Information
ATTN: Public Participation Coordinator
Federal Office Building
P.O. Box 1628
Juneau, Alaska 99802

Dear Sir:

Following are comments on your Draft Environmental Impact Statement for the Alaska Regional Plan, August 1981.

As a whole, we feel you have adequately responded to the National Direction from the Chief of the Forest Service and the 1980 recommended RPA goals in compliance with NFMA and NEPA.

We agree with your preferred alternative of even-aged management as the prescribed silvicultural system for all species. We are concerned, however, with the size of created openings. We have found that small clearcuts result in more edge with increased blowdown potential. Major windstorms are difficult to predict in Southeast Alaska and unless the majority of clearcuts are against windfirm areas, there will be an increased loss of timber due to blowdown which will also increase the possibility of insect damage, such as the Trypodendron lineatum which lowers the grade recovery for saw logs. Blowdown is not only dangerous to cut and log but also produces a drop in value and log grade. We would like to see clearcuts designed not for size but for better windfirm edge with a minimum of edge to clearcut ratio.

Under Issues and Management Concerns we would like to see added: "Modification of Primary Manufacturing Requirements". This in order to allow operations on the National Forests to remain competitive. Changing the 8" nominal to 12-3/4" will provide the opportunity to open new markets and improve industry's position in present markets which will result in a more stable employment picture for our employees.

8

6

C-53

September 1, 1981

Under Conflicts Between the Harvest of Old Growth Timber and Wildlife Habitat, we feel that the Alaska Department of Fish and Game needs additional research before they can state "...permanent loss of habitat" for some species of wildlife. To ask for a total withdrawal of cutting in old growth stands of 50 thousand board feet per acre and above is unacceptable. Leave strips in stands of this volume class may be one solution. The loss of the timber in this volume class would not only upset the species and grade mix, but the recovery and allowable cut on the Tongass National Forest as well.

Under the same heading we also feel that the Alaska Regional Plan needs to address the problem of forcing low quality wood on to the sawmills. Quality of timber harvested is important to the primary manufacturing plants. The cants produced must compete in a market which prefers round logs. Therefore, they must be a highly desirable product. Quality of wood available has already been severely impacted by the Native land selections and wilderness withdrawals. Further reductions of available high quality timber stands to harvesting should be curtailed.

Under Major Regional Plan Policy Alternatives-Silviculture-Alternate D, we would like to see added: "Clearcuts will be designed to minimize blowdown by placing cutting boundaries against windfirm edges".

Under Maximum size of created openings, we prefer Alternative A (Area Guide) for the above stated blowdown potential attendant with small created openings. We would suggest that the Forest Service research the possibility of an NFMA variance for Southeast Alaska.

The remaining preferred alternatives for the ARP standards and guidelines are ours as well.

Thank you for giving us this opportunity to comment on your Draft Environmental Statement for the Alaska Regional Plan.

Sincerely,

R. A. Madden
R. A. Madden
Chief Forester

hr
cc: G. Woodbury
L. Jones

8



UNIVERSITY OF ALASKA
Institute of Social and Economic Research
707 A St., Suite 206
Anchorage, Alaska 99501
Phone (907) 278-4621

September 25, 1981

John Sandor
Regional Forester
Attention: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandor:

I enjoyed reading the Draft Regional Plan and found it informative and well prepared. The plan addresses and resolves many important issues. There is one problem that it does not try to resolve, however.

The issue of possible conflicts between harvest of old-growth forest and wildlife habitat needs, particularly those of Sitka deer, is apparently of serious concern to state game officials. The Alaska Department of Fish and Game stated its position clearly in documents reproduced in Appendices E and F of the Draft Regional Plan.

In discussing this issue, The Draft Plan states (p. 27) that, "Information from The Queen Charlotte Islands in British Columbia, Canada, and from other islands in Southeast Alaska - Sokolof, Lesnoi and Level Islands - indicates that the dependency (of Sitka deer) on old growth forests may be lessened somewhat where the maritime climate predominates." This information is not discussed or cited in the report of the ADF&G staff (Appendix F) or anywhere else in The Draft Regional Plan. Perhaps it derives from as yet unpublished research sponsored by The Forest Service.

I would be grateful if you or your staff could provide me with references, or preferably, copies of research papers that formed the basis of the statement made on page 27 of The Draft Regional Plan. I would like to become fully informed about this interesting issue. Thank you very much.

Sincerely yours,

Matthew D. Berman

Matthew D. Berman
Assistant Professor of Economics

12

Douglas E. Dobyns
General E. B. Bitter
Hussey, B.C., V0R 1M0
September 24, 1981

John A. Sandor
Regional Forester
ATTENTION: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Dear Sir:

I have read the Draft Alaska Regional Plan and the associated Draft Environmental Impact Statement, which were released in August, 1981, by the Forest Service. On the whole, I am very impressed with the depth of these documents—and I would like to assure you that the comments which follow are offered in a spirit of cooperation. In fact, I wish that the Canadian and British Columbia Governments with which I usually deal on matters of regional environment administration would learn from your approach. The documents which you have produced are readable and have an open approach to allowing public input.

The specifics of your Regional Plan which most concern me are those which involve planning for the forested and mineral resources of the Stikine River. This plan seems to be a very realistic fish-packing plan called "Glasgow", situated on the North bank of the Stikine a few miles up river from the Alaska-Canada boundary. The health of the salmon stocks is my primary concern, since it is the source of my livelihood, and the health of the surroundings and the society are also very important to me since these are the conditions in which I must live.

When the Public Issues (page 9 of the Plan) are examined, the ones which most directly impact on my life are: Development of Energy & Mineral Resources; Transportation Corridors; Designation & Management of Wilderness; and Concern About Economic Development & Social Stability. These are only one-half of the issues identified, but since the other one-half impact on Alaskans I will leave them for others to make their comments.

Development of Energy & Mineral Resources

The public scoping process showed the withdrawals under the Federal Land Policy and Management Act as the primary concern under energy and minerals. The Alaska Lands Act resolved this issue. Analysis led to the conclusion that with the withdrawal question resolved, existing policy was sufficient to address this issue at a regional level.

The planned developments of Energy Resources on the Stikine & Iditar Rivers cannot be treated with a policy as stated above. Trans-boundary rivers need a special policy to address the lives of both British Columbia and Alaska. In a watershed analysis which will take steps to evolve measures which both communities will find satisfactory.

The limits to mineral development in British Columbia are ambiguous and difficult to search for British Columbians. The USFS can deal with the B.C. Government in a creative manner to clarify regulations which are difficult for others to approach. Senator Austin, recently added to the Federal Cabinet in Ottawa, is a man with expertise in this area and could be called upon to develop public access to the equivalent processes that are represented by the Draft Alaska Regional Plan.

It is therefore recommended that the USFS take a leadership role in approaching this public issue at the levels of government to improve understandings of the public for how to communicate with administrators in Juneau, Victoria, Washington, D.C., and Ottawa. It is therefore also a recommendation that the USFS sponsor talks in Alaska and British Columbia to determine the feelings of residents and visitors on specifics when an eventual development is being considered.

Monies budgeted to make research projects available, and to create research on the Stikine Basin, need to involve the local residents, informed visitors to a higher degree, active American knowledge, pioneer experience, industrial histories, and environmental research are all items which could be integrated in a comprehensive approach. Impacts on fisheries are especially in need of this type of approach.

Transportation Connections Between Communities and Management of Potential Transportation Corridors

Under the Alaska Lands Act, the Stikine Corridor has a special status and is largely determined by Canadian input. It is the wish of the fishing community that their status in this matter be given a high profile, and that the bias for receiving Canadian input be slanted towards local residents of the Stikine Basin over large-money interests which will be pushing contraria.

It is recommended that the management of the transportation corridor be examined for the beginning in terms of improving river navigation and communications for emergency situations. The water-level monitoring system which is hooked up to the satellite communications and a backup system for times when the system is down, and access to the satellite communications could be explored to improve radio connections which are very poor on the Canadian side of the boundary.

Designation and Management of Wilderness

The flexible approach described in the Draft Plan is a good one. For wilderness to be reviewed every two years, one questions which policies are to be considered as permanent and which policies are considered as changing. It is my opinion that the designation should be expanded to include a manner of education for the general public into personal values and spiritual benefits associated with quality wilderness experiences. The management of wilderness will be an easier task, over time, if society recognizes human roles within the natural ecosystems. Obviously there is a strong need for protection of the natural living and mineral forms, however nothing will ever remain static on this earth and the delicate subject of a changing wilderness needs to be addressed.

In that the Stikine has a sizable area of wilderness, the Canadian river from the boundary up-river needs to have some attention. At this time, there are very few restrictions on this section of river. People fishing in the commercial harvest of salmon are left to voluntary controls on their disposal and several other items which could limit the enjoyment of people using the river for wilderness experiences. Perhaps, since the situation is relatively healthy at this time, the best way to protect the values is to encourage a sense of cooperation with the wilderness values, however there is probably a population threat-fold at which this measure will deteriorate.

It is therefore recommended that the USFS encourage the British Columbia and the Canada Government(s) to consider setting aside wilderness and ecological reserves on the trans-boundary river areas of the Stikine and the Alsek Rivers.

Concern About Economic Development and Social Stability

There can be no discussion about the topics of economic development and social stability on the Stikine River without addressing the difficulties of the fishing communities of the two nations having to share in the harvests of common salmon stocks. USFS policies involving this matter are less critical than the policies of the Alaska State Fish & Game, the Canadian Fisheries Services, and the fisher-personal organizations on both sides of the border—but the USFS does have a role in this matter and, from reading of the Draft Plan, this role is likely to become a larger one.

The Projected National Forest System Program Outputs, Activities & Costs from the 1980 RPA Recommended Program, listed for the Chugach and the three areas of the Tongass National Forest(s) all show the same remarkable goal—from 1982 to the year 2000 the USFS plans something on the order of a 100-fold increase in the number of people fishing on the Stikine River. This would like to have any follow-up data that is available on this plan, and would like clarification on why the figures are the same for each of the 4 districts.

There are obviously many differences to address in this situation, all of which affect social stability. The subsistence rights of the Tahltans and other Canadian residents on the Stikine are substantially different from the subsistence rights experienced in Alaska, and the intensity of the sports fishery has special considerations in its impact on the Canadian commercial harvest. This subject is therefore in great need of further study added to a better system of communications in the trans-boundary area.

Sincerely,

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29/9/81

October 3, 1981

John A. Sanoor
Regional Forester
ATTENTION REGIONAL PLAN
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Comments on the DRAFT ENVIRONMENTAL IMPACT STATEMENT, ALASKA REGIONAL PLAN:

Dear sir:

The preferred alternatives reflect the Forest Service's sincere attention that has been given to the Southeast Alaska Area Guide. However, there are points in the DEIS on which another point of view should be expressed.

Public Issue, #1 Impact on Fisheries from timber harvest

How can the 100 acre clearcuts preferred which must come from oldgrowth trees be beneficial to streamside and other fish habitat? Temperature rise alone would be enough to cause serious trouble in such a large opening. The Plan does not adequately answer this.

The same is true of #2 Wildlife conflicts.

The report prepared by the Alaska State Game Division for the Board of Game on wildlife and forest practices in Southeast Alaska is excellent. Since it was published another study by J. Schoen and Matthew Kirchhoff was released in March, 1981 on blacktail deer in Southeast Alaska which supports the retention of oldgrowth forest winter range because of lichen which feeds goats and deer. It is found growing only on trees more than the 125 year old trees intended to be the upper limit of this plan.

Fish and wildlife management needs equal consideration with other resources in all Forest Service programs. Alaska has a national responsibility for habitat of birds, game, sea life because of the migratory patterns of the creatures which summer there as well as those which are residents.

Alternative Standards and Guidelines for Timber Resource comments:

1. Systems of Silviculture must be flexible. Shelterwood or clearcut must protect soil and slopes against altering water/fish habitat.
2. Maximum size of created opening of 30 acre maximum would be to the advantage of game animals for cover. 100 acre cuts will drive them out, despite an increased supply of browse. A temperature change in small opening is an important element in fish habitat.

15

October 5, 1981

R. Max Peterson, Chief
USDA Forest Service, Alaska Region
Federal Office Building
P.O. Box 1628
Juneau, AK 99802

Dear Mr. Peterson:

This is in response to the Draft Environmental Impact Statement for the Alaska Regional Plan dated August 1981.

I commend your efforts in the development of management policies which serve to coordinate the various activities of our land management agencies at all levels and interests.

A reference is made on page 3 of the EIS to the protection of anadromous fish habitat from any detrimental effects of timber harvest activities. As demonstrated by leave strip blow down on Montague Island and frequent ineffective application of protective measures, any program requiring leave strips of any particular widths without site specific consideration tend to degrade actual habitat preservation.

I disagree with the direction of discussion concerning the conflicts between wildlife and the harvest of old growth timber areas. Extensive clearcuts do, in fact, reduce habitat for certain wildlife, however, clearcuts which allow thickets, small peninsulas, islands and the like as protective cover together with the adjacent regeneration enhance habitat. I seriously doubt the validity of a policy of blind preservation of old growth timber solely to provide snow interceptors.

What is presented on clearcutting in Section 8.1.a.(1) of Chapter IV is good. It would be better to state, however, that clearcutting has many disadvantages. Highlighting the adverse impact to wildlife dependent upon the extent of clearcutting is important. The Southeast and coastal areas of Alaska exhibit high precipitation amounts which dramatically emphasize the necessity for soil conservation measures. Specific techniques which are to be utilized for soil conservation are appropriate additions to this EIS. Clearcutting, however, should be noted as an extremely effective timber harvest method which, if properly done and supervised, will produce the least damaging effect on the environment, cause the construction of the fewest roads and be most effective in the use of support infrastructure as compared to other methods. Poorly done, clearcutting creates blight and ruins our land.

I wish also to state my opinion concerning the designation of National Forest lands as wilderness. Great care should be used so as not to preclude the use of lands in their highest and best use, which may or may not be as wilderness. The designation of landlocked areas peripheral to developing areas as preserved wilderness is not in the best interest of resource management using the multiple use concept. Restrictive designations which prohibit flexibility in management and use should be avoided at all costs.

3. Diepereal objectives stated, (P.129) respond to small openings as well as to large ones. When a outover area is no longer considered an opening at five feet wildlife shelter is lacking but the impact is minor in a 30 acre or less cut.
 4. Closed openings at five feet provide wildlife shelter and cover in summer range but not in winter. See the Study by John Schoen and Matthew Kirchhoff on oldgrowth lichen forage for Southeast Alaska blacktail deer.
 5. Biological growth potential would be enhanced if the practice of cutting timber on land capable of only 20 cubic feet per acre per year was stopped. Revise it upward to 50 if possible. Commercial foresters now say 80-120 is the most economically feasible growth potential.
 6. Management intensity should include snag policy in planning salvage cutting.
 7. Utilization standards include beach logs, but some protection of young fish in shallow harbors should be included.
 - 8/ Mean annual increment measured in cubic feet rather than board feet is good in that this allows stock of all ages to be considered.
 9. Sale administration and Project Monitoring are properly flexible
 9. Transportation and utility corridors treated as one for all rights of ways reduces adverse visual impact as well as conserving timber growing areas. A network of roads will be adverse to fisheries, because the higher the road standard the more silt of water there is from this non-point source of water pollution.
 10. Air quality could be improved by more chipping in slash disposal, thus continuing to build soil quality.
- The Plan is primarily a timber resource oriented statement. Recreation is treated only incidentally with emphasis on wilderness being removed from the timber cutting base. As far as Alaska is concerned, the future welfare of the state depends upon preserving the qualities that have made it unique: free use of space. Recreation plans for primitive recreation trails, mountain routes, boat landing spots, wild lake shores, etc. seem to be lacking. Are they not part of the resources?

Sincerely,
Faye Ogilvie
Faye Ogilvie


15

Page 2

Not addressed in the Regional Plan's EIS is the automatic review of potential hydroelectric sites. I feel it is appropriate, especially in Southeast Alaska, to address on a regular basis (the 15 year Federal regional plan review cycle should be adequate) the possible development of critical public facilities, such as hydroelectric power generation stations.

Thank you for the chance to provide input.

Sincerely,



Russell R. Cunningham, Jr.

2448 Sprucewood Street
Anchorage, Alaska 99504

16

C-56

16

Box 454
Valdez, Alaska 99686

801 West St. Andrews Road
Midland, Michigan 48640
October 22, 1981

USDA Forest Service
Alaska Region, Office of Information
ATTN: Public Participation Coordinator
Federal Office Bld.
Juneau, Alaska 99802

RE: Alaska Region report 147
Draft Alaska Regional Plan
Alaska Region report 148
Draft Environmental
Impact Statement

USDA Forest Service
Alaska Region, Office of Information
Attention: Public Participation Coordinator
Federal Office Building
P.O. Box 1628
Juneau, Alaska 99802

Gentlemen:
I have finished a review of the subject reports. It is clear that your staff has done a complete job on a complex issue. They are to be commended. I have only one comment. I urge you to follow Joint Resolution #80-80-TB listed in report 147 as Appendix E.

Yours truly

B. J. Murphy
Bernard Murphy

Dear Sir:

I have gone over in detail your "Draft Environmental Impact Statement, Alaska Regional Plan" and have the following comments.

Alternatives, Chapter II -

I agree entirely on your Preferred Alternates. They are more detailed, more specific, more practical, and will be best for the future timber harvest and for the forest. They will be better for the habitat and wild life. Also giving more decisions to the Forest Supervisor is commendable since they are closer to the problems in many cases.

Appendix I -

I assume that "Change/Reference" and "Referred to Forest Planning" and "Clarification" means that the Area guide policies need to be clarified and perhaps changed. The use of the IDP is commendable.

I have scanned "Draft Alaska Regional Plan" and read "Recreation". It seems to be very complete and it is excellent.

Very truly yours,

F. M. Baxandall
F. M. Baxandall

RECEIVED

OCT 13 1981

FOREST SERVICE O.I.

17

RECEIVED

OCT 27 1981

FOREST SERVICE O.I.

26



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 1888
Juneau, Alaska 99802



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 1668
Juneau, Alaska 99802

Date : October 23, 1981

Reply to AIZN. of:

To : PP/EC - Joyce M. Wood

From : *F. M. Baxandall*
F. M. Baxandall

Subject: Comments on Draft Alaska Regional Plan and Draft Environmental Impact Statement - Alaska Regional Plan.

The following are the comments of the Alaska Region on both the Draft Alaska Regional Plan and Draft Environmental Impact Statement - Alaska Regional Plan as requested in your memorandum of September 2, 1981.

General Comments

The National Marine Fisheries Service is concerned about the number of Southeast Alaska Area Guide policies that have been referred to Forest planning for possible modification in this Draft Regional Plan (DRP). Many of these policies provide management direction that directly affects anadromous, estuarine, and marine fishery habitats. Our concern is that important fishery policies may be eliminated or their content weakened by Forest planning and that further public review of these changes will not be allowed.

The Southeast Alaska Area Guide policies were developed after extensive public input and review. However, the DRP states that many of the Area Guide policies are referred to Forest planning and does not indicate whether the public will have a say in future Forest planning efforts. Many of the policies that are now being referred to Forest planning by the DRP evolved from very controversial public issues during the development of the Area Guide. Therefore, we strongly recommend that the Forest Service consider a public review process before any Area Guide policy is eliminated or modified.

Specific Comments

DRAFT ALASKA REGIONAL PLAN

CHAPTER II - SUMMARY OF THE ANALYSIS OF THE MANAGEMENT SITUATION

FISH

Page 25, Number 7. We recommend expanding the last sentence to read: "... and by natural habitat protection, enhancement, and restoration."

27

October 26, 1981

Mr. John A. Sandor
Regional Forester
Attn: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandor:

The National Marine Fisheries Service, Alaska Region, has reviewed the Draft Alaska Regional Plan and Draft Environmental Impact Statement - Alaska Regional Plan.

In order to provide as timely a response to your request for comments as possible, we are submitting the enclosed comments to you directly, in parallel with their transmittal to the Department of Commerce for incorporation in the Departmental response. These comments represent the views of the National Marine Fisheries Service, Alaska Region. The formal, consolidated views of the Department should reach you shortly.

Sincerely,

Robert W. McVey
Robert W. McVey
Director, Alaska Region

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OCT 27 1981

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Page 26, paragraph 4. We believe that it is incorrect to state that all eight endangered marine mammals in Alaska are not directly influenced by National Forest management programs. We do believe that it is extremely remote that four of Alaska's endangered whales would be affected. The sperm whale is an open ocean species that seldom enters shallow in-shore waters. Bowhead whales inhabit arctic and subarctic waters, and are primarily associated with pack ice; they would not be expected to occur in the Gulf of Alaska or the protected waters of southeast Alaska. Right whales are extremely rare and have not been sighted in southeast Alaska; however, they are believed to feed in the Gulf of Alaska. Blue whales travel into the Gulf of Alaska and are known to enter shallow, near-shore waters, although they have not been sighted in southeast Alaska.

The remaining four endangered whales, which include the gray, sei, finback, and humpback, have been sighted in the outer coast or entrance water of southeast Alaska. The humpback whale is known to frequent the inside waters of southeast Alaska at certain times of the year. In some areas the humpback whale may be a year-round inhabitant.

The National Marine Fisheries Service through its National Marine Mammal Laboratory is studying the humpback whales of southeast Alaska. This past year the National Marine Mammal Laboratory studied distribution and abundance of humpback whale prey species, hydro-acoustical characteristics that may cause vessels, aircraft and other types of man induced noise to be disruptive to humpback whales, and humpback whale behavior in response to boat density. Presently, the results of these studies have not been analyzed.

National Forest management programs do include siting of marine oriented activities such as log transfer sites, log rafting sites, floating logging camps, seaplane floats, and small boat docking facilities. These activities could have an adverse impact on the feeding or resting of humpback whales. Therefore, we recommend that a statement be included to indicate that conflicts could exist.

It should be mentioned that the National Marine Fisheries Service is directed to manage certain marine mammals under the Endangered Species Act of 1973. This direction included endangered whales.

ESTUARIES AND TIDAL MEADOWS

Page 33, paragraph 1. This paragraph leads the reader into thinking that the coastline that borders the Tongass and Chugach National Forests is either estuaries or tidal meadows. We believe that a definition of both types of habitat should be explained to avoid this impression. Also, it should be explained to the reader that when compared to either the forest or the marine

waters the estuaries and tidal meadows occupy a small amount of land area. This habitat, however, is highly productive and is critical to certain types of fish and wildlife.

Paragraph 2. This paragraph discusses rocky shores, unprotected surf-swept shores, and other habitats that are associated with intertidal and subtidal habitats along the coastline of Alaska that are not considered estuaries. We recommend that these areas be included under a separate heading such as "marine shoreline".

We believe that the critical and highly productive habitat that marine shorelines provide to fishery related resources should be elaborated upon. We suggest something like the following:

In Alaska's coastal waters, a relatively narrow band of lower intertidal and shallow subtidal area plays a major role in productivity. Sunlight, currents and bottom substrate are dominant influences on the productivity of this habitat. Typically, this area is characterized by heavy vegetative growth which provides habitat for a diverse array of marine animals...

Page 34, paragraph 3. The Southeast Alaska Area Guide recommends, "Rafting and log storage areas will be in the deepest water possible with a minimum depth of 13 meters (40 feet) at mean lower low water". This is a much stronger and explicit statement than, "The Forest Service supports the selection of storage areas over water deep enough to prevent grounding of rafts at any tidal stage." The statement within the Area Guide provides better fisheries protection and is a better management objective. We recommend that the Area Guide's wording be used in this paragraph.

CHAPTER V - STANDARDS AND GUIDELINES

FISH

Page 117, 5a. We believe that a management objective should be a 100 foot wide buffer strip on either side of fish streams.

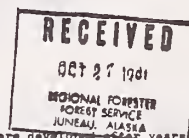
We believe that trees that are left standing to protect a fish stream should have a very high economic value. These trees can be harvested through selective cutting so that their timber value can be realized and these trees can protect fish streams so that more fish are produced. Therefore, buffer strip trees provide the greatest resource utilization of both fish and timber.

Specific Comments

DRAFT ENVIRONMENTAL IMPACT STATEMENT - ALASKA REGIONAL PLAN

CHAPTER I - PURPOSE AND NEED

To: John Sander, Regional Forester
From: Cliff Lobaugh
Re: Alaska Regional Plan
Date: 10-23-81



Policies in the Southeast Alaska Area Guide were developed over years of public input, litigation, and an involved planning process. The policies were developed for definite reasons, because direction was needed to solve issues in the forest management of the Tongass at a regional level. In the formation of the SEA Area Guide, the NFMA was followed and these policies were to be incorporated in the Regional Plan. Now "Forest Planning", whoever they are, state no major changes in the regional level management direction are necessary.

1-What was the use of past extensive public and private industry involvement in the development of the Guide if the policies formed are not necessary or to be utilized?

2-How can you develop a plan that is not concerned with resolving regional issues that have clearly been specified as regional issues in the planning process?

3-Why are these regional issues been referred to the district level?

4-The only clear cut document giving management direction (aside from 450mbf/y) is the 10 point resolution by the Joint Boards of Fisheries and Game. Why was this document placed in the back of the plan and not considered in the wildlife section? You have completely ignored the wildlife problem which is a regional problem in management.

5-Who is Forest Planning?

6-What give the Forest Planning the authority to negate over twenty years of public involvement in the planning process at the regional level?

7-How did Forest Planning come to the decision that "no major changes in the regional management direction are necessary"?

8-Does the Regional Office have the ability to develop a regional plan that addresses the issues other than intensive forest management? If your answer is yes please list the issues that are being addressed in the regional plan with as much vigor, determination and dedication as cutting 450mbf/y.

Congress directed the Forest Service to report to them if 450mbf/y cannot be sustained. The Regional Plan does not question this figure, yet the Area Guide, TLMP, and other planning documents have suggested a lower cut. In light that the natives have predicted cutting more timber than the planning process of the USFS predicted this 450mbf/y should be questioned at a regional level.

The major concern of the Draft Regional Plan is to cut 450mbf/y and intensive timber management. Until more issues are considered we do not have a forest plan, we have a timber harvest plan. This Regional Draft Plan has regressed the USFS regional planning process in this area (Tongass) back to the level of the 1964 Multiple Use Plan for the TSP. We are back to developing a timber harvest plan instead of a Regional Plan for the forest. You have developed a regional problem and not a regional plan with this document.

Scrap this outdated, 1964 vintage document, and develop a Regional Plan that addresses guidelines resolving the major public issues and management concerns. These issues and concerns are of a regional level and well documented in public participation over the years. The NPSA regulations state, "THE REGIONAL PLAN MUST ISSUE GUIDELINES TO THE PUBLIC ISSUES AND MANAGEMENT CONCERNS". Let's not pass the buck to the districts and do your work. The public has been getting the run around by the USFS long enough.

CLIFF LOBAUGH
7691 GLACIER HWY
JUNEAU, ALASKA 99802

JOHN SANDOR
ATTN REGIONAL PLAN
USFS
BOX 1628
JUNEAU, AK 99802

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October 27, 1981

p 92. This listing of goals is the best we have seen in similar plans. Nevertheless, numerical production goals are essential if wildlife is to have equal status with timber in the eyes of the line officers.

p 92. Add a wildlife goal #7. Improve internal coordination to enhance wildlife and mitigate effects on wildlife of other resource uses.

p 117, #5. We disagree. Within 100 feet of a stream, fisheries considerations must be overriding—not co-equal.

p 131, 1st par. Trees 5 feet high still constitute an opening to many species of wildlife.

Environmental Impact Statement

p 8, #3. Conflict between the harvest of old growth timber and wildlife habitat should have been addressed and at least partially resolved in this document.

p 42. Does the Forest Service recognize state fishery goals?

p 43. Are there any numerical state wildlife goals?

Chapter IV. The text would be improved by better descriptions of the alternatives. Full understanding requires repeated reference to tables in another chapter.

p 58. We disagree that 5 feet high ends classification as an opening.

p 65. The terrestrial wildlife biologist working on or with the interdisciplinary team should be listed.

These remarks have been coordinated with William B. Morsa, the Institute's Western Representative.

Sincerely,

Daniel A. Poole

Daniel A. Poole
President

DAP:bb

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OCT 30 1981

FOREST SERVICE O.I.



Wildlife Management Institute

709 Wire Building, 1000 Vermont Ave., N.W., Washington, D.C. 20005 • 202 / 347-1774

DANIEL A. POOLE
President
L. R. JAHN
Vice-President
L. L. WILLIAMSON
Secretary
JACK S. PARKER
Board Chairman

October 27, 1981

USDA Forest Service
Alaska Region, Office of Information
Attn: Public Participation Coordinator
Federal Office Building
Post Office Box 1628
Juneau, Alaska 99802

Dear Sir:

The Wildlife Management Institute is pleased to comment on DRAFT ALASKA REGIONAL PLAN and DRAFT ENVIRONMENTAL IMPACT STATEMENT, Alaska Regional Plan.

The Alaska Regional Plan has the best description of fish and wildlife, and their problems, of any of the regional plans we have reviewed to date.

However, we see no need for a regional plan and EIS that covers only the ten timber-related activities specified by the National Forest Management Act and the Chief's office. Better to have waited until firm goals and targets were obtained from the individual forest plans.

The discussions of fish and wildlife are good as are the directions to the forests. They would have been improved by an examination of alternatives. However, it appears that adequate management direction has been specified for all areas except old-growth retention.

Fish and wildlife targets are given as acre equivalents—a description not understood by most people. We prefer the use of many days of coordination and a listing of projects.

Wildlife will not be truly competitive until herd numerical production targets are specified. Work with the state agency should be accelerated until this is done. Alaska could use Intergovernmental Personnel Act transfers to excellent advantage.

The major deficiency of this plan is its failure to include old growth as an additional standard and guideline with alternatives. This could have been done such as the spotted owl discussion was handled in the Region 6 plan.

Some specific comments follow:

Regional Plan

p 26. Wildlife and fishery goals should be emphasized and highlighted—not buried in a situation statement.

49

Ronald G. Hansen
4117 Birch Lane
Juneau, Alaska 99801

November 2, 1981

Mr. John A. Sandor
Regional Forester, Alaska Region
ATTN: Regional Plan
U. S. Forest Service
P. O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandor,

Thank you for the opportunity to review the Draft Alaska Regional Plan. I reviewed the draft and the accompanying draft EIS.

I am not a forester nor do I work for the US Forest Service. Perhaps a detracted viewpoint would provide you with a perspective that is different from your own. In the past it was apparently difficult for foresters (and persons with other professional backgrounds) within the US Forest Service to look at a forest and see anything but essentially trees. Fortunately a resource planner now in the US Forest Service can look at a forest and see, as it were, salmon, or water, as a resource to be managed. That is good. Similarly planners can "see" wilderness or primitiveness as a resource to be managed. Unfortunately the growing trees, or all the living things on the land have been viewed as the limits of USFS jurisdiction. Mineral resources have been viewed as within somebody else's jurisdiction and specifically as a force opposing objectives as defined by USFS. It is to this point that I wish to comment.

The draft plan mentions mining, but only as something out in left field or as a threat to be controlled or a permit application upon which to react. USFS should not approach (or react to) the management of mineral resources in this manner.

Perhaps because there is a US Bureau of Mines in the federal government, USFS

feels they have no jurisdiction and that the US Bureau of Mines is the proponent entity in the federal organization. It is probably best that US Bureau of Mines remain a control agency and other entities take up a proponent status. The old AEC is the usual bad example trundled out of what happens when a governmental entity is both the proponent agency and concurrently the control agency. U. S. Forest Service should manage the mineral resources on lands entrusted to their management, not just manage the growing things, water resources, and esoteric concepts such as beauty and primitiveness..

I urge you to revise the draft plan and, since a plan is merely a way to achieve an objective, the objectives also need revision. You are the Federal Resource Manager in an old organization that happens still to have the old name of U S Forest Service. Recognize that you are in charge of the proponent agency for the land in Alaska allocated to USFS. Stand above the old agency objectives and ways of doing things. When you see a forest, don't just see trees, see salmon, water, parks, and minerals.

Thanks again for this opportunity to present my views on your plan and the implicit objectives. If I can help further, please call.

Sincerely yours,

Ronald G. Hansen
Ronald G. Hansen

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We are very disappointed in the pro logging bias of the entire Draft Plan and DEIS, and deemphasis of fish, wildlife, wilderness and aesthetic values of the forest. The fact a highly qualified wildlife biologist, recreation planner or wilderness biologist did not participate on the Interdisciplinary Team that prepared the DEIS is in itself a clear reflection of this. To refer fish and wildlife management conflicts to "future planning" while extensive clearcut logging is allowed to continue appears to be in obvious conflict with the intent of the National Forest Management Act (NFMA) and the National Environmental Policy Act (NEPA) and other federal laws.

We are also greatly disturbed that a number of policies relating to fish and wildlife management present in the Southeast Area Guide have been "referred to forest planning". What specifically does this mean? Recent research findings have revealed the adverse effects of clearcut logging of high volume old growth timber stands on a variety of wildlife including eagles, Sitka black-tailed deer, brown bear, mountain goats, Vancouver Canada geese and various passerine birds. Professional forest planning and balanced multiple use management would take such findings into full account rather than de-emphasize them. Furthermore, to discount the extensive public input that was solicited to develop the Area Guide is a disservice to the public, and only serves to reinvent the wheel.

SPECIFIC COMMENTS

I. Introduction

Page 3, paragraph 6 (stage 2b)

The Forest Service appears to be using the Regional Plan as an opportunity to eliminate from all future planning direction most of the standards and guidelines already established in the Area Guide. The "test of relevancy" is whether the issue applies to the Region as a whole. The DEIS is entirely devoted to resolving impacts of 10 timber management issues which for all intents and purposes relate solely to the Tongass National Forest. But the impacts of clearcut logging on the wildlife and fisheries resources, which the Plan concedes is a major public issue, is not considered "relevant" to this planning document. We strongly oppose deferring the resolution of these major public issues, already resolved in the Area Guide, to future Forest planning. We believe they are of a Regional nature and should be addressed in this draft Plan.

Page 4, paragraph 3

If local plans are indeed the "basic building blocks for regional planning", why have most of the Area Guide standards been eliminated?

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Page 9, 2nd paragraph below box

The key here is "minor clarification." The Area Guide has been modified in a more than "minor" way. Most, if not all, of the specific management prescriptions aimed at solving "major public issues" have been referred to forest planning. The drastic change in the direction of the standards and guidelines constitutes a major federal action. The lack of guaranteed specific prescriptive policies will severely affect management of federal land. As such, all of the changes to the Area Guide standards and guidelines should be reviewed in the EIS process.

Page 10, paragraph 2

The Plan states that development impacts on fisheries can be minimized through implementation of existing policies, standards and guidelines. It is these very existing standards and guidelines, embodied in the Area Guide, that have been eliminated in this document.

Page 10, paragraph 3

This is a direct contradiction to the previous paragraph. The Regional Plan refers the prescriptive policies of the Area Guide to forest planning, having stated in the above paragraph that these existing policies are necessary for the protection of fish habitat. The Plan implies that Area Guide policies are needed and in operation, yet removes them and defers them to "forest planning."

Page 11, paragraph 2

We see the Forest Service's failure to address the major conflict between harvest of old growth timber and wildlife habitat as one of the largest shortcomings in this document. We firmly believe that this is a major public issue and satisfies the criteria (p. 8) for inclusion in the Regional Plan. The Forest Service itself identifies this as a major public issue; explains research findings which indicate serious conflicts; then, eliminates any prospect of resolving the issue through the Regional Plan, and does not even defer the issue to forest planning. When and where does the Forest Service plan to address this issue? This does not show full commitment to working with the Alaska Department of Fish and Game. Neither does it show any commitment to public concerns.

Page 13, Management Concerns: Update of Guide

Reviewers (the public) feel the Forest Service develops good plans and policies, but "these appear to get lost in the implementation process." This has been happening with specific prescriptive policies that are very easy to implement. What will happen when the region is trying to implement the ambiguous policies suggested in this draft plan?

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Page 24, paragraph 4

These existing standards are in the Southeast Area Guide and most of them have been deleted.

Page 25, assumptions 5 & 6

These sound contradictory. The Forest Service admits that habitat quality and quantity will diminish, but will not have an adverse effect on productivity?

Wildlife

Page 26, paragraph 3

The State has primary responsibility for managing wildlife populations. The Forest Service is responsible for managing habitat. This opening paragraph should be rewritten to reflect the state's lead role and cooperation between agencies.

Page 27, paragraph 4

ANILCA also mandates the Forest Service to report back to Congress whether the 4.5mbf/year cut is sustainable in consideration of protecting all forest resource values. The Forest Service ignores this by assuming the mandated cut will have to come from lower volume stands if high volume stands are retained for wildlife. The Forest Service should consider a reduced annual cut as a viable alternative.

Page 29, paragraph 2

To our knowledge, the Forest Service has no ongoing scientific research to support these claims. Fish & Game continues to supply the Forest Service with research on "species/habitat relationships". We know of no research that indicates thinning will convert a low-forage second growth forest into an old growth forest highly valuable to wildlife.

Page 29, paragraph 3

The Forest Service continues to suggest that additional research will supply alternative solutions to this problem of retaining old growth habitat. Meanwhile, clearcut logging continues and no alternate harvest techniques are tried. How long is the Forest Service going to try and delude the public with the facts regarding this issue? We strongly urge the Forest Service to take immediate steps to resolve this issue through the Regional Planning process. Continuing to call for further research and alternate silvicultural prescriptions does not provide deer with adequate winter habitat or satisfy the public's growing demand for wildlife and recreation values on their National Forest lands.

Estuaries and Tidal Meadows

Page 34, assumption

If fish and wildlife habitats will need "increasingly refined management measures," why have the current policies in the Area Guide been deferred to "forest planning?" Shouldn't these Area Guide policies be further refined instead of merely reinstating them in a forest plan?

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Page 14, paragraph 1

We believe very major changes have been made in the Area Guide policies. If Area Guide policies are indeed the foundation for the Regional Plan, why were not they allowed to remain in place? By replacing specific policies with broad generalizations the public will have to repeat the planning process instead of refining it through a revision of TLMF. This shows lack of concern for public participation in the planning process.

Page 14, summary bottom of page

Of the eight major issues identified by the public as concerns, it appears the only two considered important by the Forest Service involve timber and road systems. By blatantly ignoring the conflict between wildlife habitat and old growth timber harvest, the Forest Service is clearly not giving equal consideration to all forest resources. We believe the Forest Service should give due consideration to public concerns and resolve the wildlife/timber issue within the Regional Plan/EIS process.

Page 19, Assumption #3

If the Forest Service recognizes that Alaskans will demand greater environmental protection, why have the Area Guide policies insuring that protection been eliminated from this plan? Alaskans will also be demanding more non-commodity goods from the forest. Tourism is based on non-commodity goods and the Forest Service identifies it as having the greatest potential for economic growth.

Soil, Air, and Water

Page 22, assumption #2

What level of protection is closely following "appropriate management practices" going to afford? We're not sure we can assume that existing legislation, regulations and manual direction will protect sensitive watersheds, especially when many of the existing regulations and manual directives, as embodied in the Area Guide, are thrown out.

Page 22, assumption #4

High quality water is also needed for fish habitat. The need for high quality water in all parts of the forest requires data not just for municipal watersheds, but all watersheds in which development is or will be occurring.

Fish

Page 23, last paragraph

What authority does the Forest Service cite to support the statement in the first sentence? Salmon stocks can be increased by regulatory and management policies, but the limiting factor to the size of salmon stocks is available habitat. Forest development, especially logging, does decrease available habitat.

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Timber

Page 36, paragraph 2

Research published by the Alaska Department of Fish and Game clearly indicates that these low volume stands cannot replace old growth stands in providing adequate cover during winter months.

Page 37, paragraph 4

Recent reinventories strongly suggest that harvest levels set from TLMF timber inventories are over-estimated. A portrayal of these reinventories and their possible extrapolation to the remainder of the forest would be very helpful. There are those in the Forest Service and other federal agencies, the State and the public, who feel that 450 is not sustainable over the long range, yet 700 is discussed here as the ultimate goal.

Page 41, paragraph 1

The allowable timber harvest is also dependent on the accuracy of the timber volume inventory upon which all calculations are made.

Recreation

Page 46, paragraph 3

From all indications, the 12% or 2,746,000 acres (on the Tongass) currently being managed to limit road building and development (LWD II areas) is going by the wayside. The Forest Service has indicated these areas will be reclassified for timber during the revision of TLMF.

Page 49, assumption #2

The public demand is for recreation to be given equal consideration as a forest resource.

Research Programs

Page 78, paragraph 1

Research conducted by the Forest Service and ADF&G led to the conclusion that old growth habitat is essential to deer. Yet "management" continues to ignore the applicability of this research to harvest practices and ultimately ignores the entire resolution of this conflict.

Page 92, Wildlife goal #1

How can this goal be "specific to the National forest resources in the Alaska Region" when there are no threatened and endangered species on National Forest lands in Alaska?

Page 92, Wildlife goal #2

As part of the public demand, we ask the Forest Service to take immediate steps to resolve the timber/wildlife conflict through this regional plan/EIS process.

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Page 93, Timber goals
Add: 8) Monitor the ability of the Tongass Forest to sustain a 4.5 billion cut and still provide for other resources (ANILCA 706).

We ask that the Forest Service consider the above points before finalizing the Regional Plan. We would like to stress the imperative public demand that the old growth timber harvest/wildlife habitat conflict be resolved through this Regional planning process. We also ask for the specific fishery/wildlife habitat management guidelines, currently in the Area Guide after much public input, to be reinstated as part of the Regional Plan and not deferred to Forest planning. We would like to see the Forest Service show firm commitment to giving equal consideration to all forest resource values and to public participation in developing the Alaska Regional Plan.

Your providing us opportunity to comment on the Draft Alaska Regional Plan/DEIS is greatly appreciated.

Sincerely,

David R. Cline

David R. Cline
Regional Vice President

cc: Dr. Russell Peterson
Dr. Rupert Cutler
Dr. Bill Butler
Anchorage Audubon Society
Arctic Audubon Society
Juneau Audubon Society
Alaska Conservation Groups

November 3, 1981
Box 2158
Sitka, Ak 99835

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FOREST SERVICE O.I.

John Sander
Regional Forester
USDA Forest Service
Juneau

Dear Mr. Sander:

I would like to submit these personal comments on one issue in the Draft Alaska Regional Plan for which I was unable to comment for Alaska Chapter Sierra Club because we have not discussed the issue. It is a new issue to the National Forests in Alaska which surfaced in the draft plan.

For me, a very important reason for living in Southeast Alaska is that it is one of the few places remaining in the nation where pesticide and herbicide use is not prevalent. People here can use the forest anytime, anywhere without fear that 2,4,5-T or 2,4-D or Mixex or some other pesticide or herbicide has been used in the area. We do not have to worry about our fish or game being tainted or about overspray falling on our communities or watersheds.

I don't want these chemicals to be a part of my life, regardless of whether or not they are 'considered' safe and regardless of whatever safeguards might be intended in their application. Moving to Southeast was my way of saying, "Stop the world, I want to get off!" It was the only sure way to get these chemicals out of my life, and I am sure that many others share my sentiments.

No pesticides or herbicides should be used on the Tongass Forest. The forest has survived in adequate health without them, and will continue to do so. Silvicultural manipulation or biological controls should be used as appropriate to each situation, but if neither is appropriate, then the problem should be allowed to run its course, whatever that may be. I would much rather make that sacrifice than make the much greater sacrifice of introducing these chemicals in Southeast forests.

Sincerely, *James Edwards*

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JUNEAU AUDUBON SOCIETY

P.O. Box 1725 • Juneau, Alaska 99802

November 3, 1981

Mr. John Sander
Regional Forester
US Forest Service
Box 1628
Juneau, AK 99802

Dear Mr. Sander:

The Juneau Audubon Society would like to present comments on the Draft Alaska Regional Plan/DEIS dated August, 1981. Our comments will focus on what we believe are the three largest failures of the Draft Regional Plan.

First, the Forest Service once again identifies the old growth timber harvest/wildlife habitat conflict as a major public issue and then dismisses resolution completely as not being within the scope of this document. We object strongly to this continued evasion of an identified public concern. This issue clearly meets all of the criteria given on p. 8 for inclusion in the Regional Plan. If the issue is not to be resolved through this planning process--where will it be resolved? Pledges to work with the Alaska Dept of Fish and Game do not establish firm standards and guidelines for resource protection. We are not convinced that the Forest Service is in actuality giving equal consideration to all forest resources when 10 timber oriented policies can be analyzed in depth in the DEIS, but one major public issue concerning wildlife cannot be addressed in this document. We fully support the Boards of Fisheries and Game Joint Resolution #80-80-JB regarding clearcut logging in SE Alaska, and believe it is time for the Forest Service to respond to public demands and make some of these suggested policy changes.

Our second major concern with the Draft Regional Plan is that it eliminates most of the specific guidelines protecting fish/wildlife habitat currently in place under the Southeast Area Guide. The Area Guide was established in 1977 with much public involvement and was intended to act as a foundation for Regional planning direction. However, much of the Guide policies have been "referred to forest planning" (see Water p. 1-9; Fish p. 1-11-16; Wildlife p. 1-20-23; Estuaries and Tidal Meadows p. 1-27-32). Having eliminated these specific habitat protection policies from the Regional Plan, what guidelines are in place between now and 1985 when ILMP

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JUNEAU AUDUBON SOCIETY

P.O. Box 1725 • Juneau, Alaska 99802

is revised? And what guarantee does the public have that these guidelines will indeed be reincorporated into future forest plans? And why should the public, having already resolved these issues through the Area Guide, have to endure yet another planning process to reinstate current policies? This shows a gross lack of concern for public input on behalf of the Forest Service.

Lastly, we are concerned that the 4.5mbf/year cut as mandated by Congress be considered an absolute figure throughout the Plan. Congress has also mandated that the Forest Service respond to them if this level cannot be sustained and still protect other forest resources. In light of ADFG and the Boards of Fisheries and Game's request not to cut high-volume timber stands to protect wildlife resources, we do not understand how the Forest Service can continue to believe 4.5mbf/year is an absolute figure. The Forest Service suggests in the Plan that if high volume stands are retained for wildlife that greater acreages of lower volume timber will have to be cut instead. We suggest the Forest Service consider reducing the level of the annual cut.

Juneau Audubon Society asks that the Forest Service consider these points in preparation of the Final Alaska Regional Plan. We appreciate this opportunity to provide comments on the Draft Regional Plan/ EIS.

Sincerely,

George Utermohle
George Utermohle
President

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November 3, 1981

John Sander
Regional Forester
USDA Forest Service
Juneau

Dear Mr. Sander:

Here are our comments on the Draft Alaska Regional Plan and the Draft Environmental Impact Statement which accompanied it.

I would like to emphasize that 'Sierra IS Home' in Alaska. Our per capita membership in Alaska is among the highest in the nation, and growing rapidly. We have a long standing interest in the superlative qualities of forest environments in the Tongass and Chugach National Forests. Many of our members use these forests or have lifestyles directly dependent on their predominantly natural states.

The Regional Plan is a fundamental document in forest management, and we have some very fundamental problems with the draft. We hope that you will write to us soon to express your analysis of the points we have raised. We want an opportunity to rebut your analysis before it is incorporated into the plan.

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FOREST SERVICE O.I.

Sincerely,

Larry Edwards

Larry Edwards
Box 2158
Sitka, Ak 99835

"Not blind opposition to progress, but opposition to blind progress."

2.

C. I believe that several statements in para 2 page 27 are incorrect representations of the impact of logging on deer and of the relationship of deer to old growth forest. This needs to be rewritten without bias.

D. Regarding the last sentences of paras 2 & 4 on page 27, while the joint analysis is being completed, logging and planning on stands greater than 50 mmbf/acre should be suspended. I firmly believe that Region 10 is 'foot dragging to the maximum extent practicable' on the deer/logging conflict, and only such a voluntary suspension will convince me otherwise. The deer/logging conflict is such a fundamental multiple use issue, and professional wildlife biologists and the State of Alaska have been so adamant about it, that such a suspension is thoroughly justified.

E. Regarding para 2 page 29, emphasis should be on protecting existing wildlife habitat rather than on improving habitat. The forest service obviously knows little about the habitat requirements of deer and is slow to find out, even though massive logging has been pursued here for over 20 years. There is no assurance that attempts at habitat improvement will produce dependable benefits. A questionable program such as this cannot be used to justify continued destruction of old growth habitat. That is a pointless gamble when we already have a 'sure thing', i.e. the real thing: old growth habitat.

F. Regarding para 3, page 29, 'retention factors' are arbitrary numbers, a token deference to wildlife resources in devastated areas such as the northeast portion of Chichagof island. They are of course better than no retention, but they can support only reduced wildlife populations.

Timber harvest techniques and prescriptions are not an important solution to the deer/logging conflict. The research shows that deer need old growth forest, and every day of delay the forest service requires to come to that realization and to act accordingly exacerbates the problem. Logging of stands over 30 mmbf/ac should be substantially reduced, and logging of stands over 50 mmbf/ac should be ceased.

I regret that the tone of these comments must be highly critical; however, I find that the draft Alaska Regional Plan is absolutely unacceptable and that it requires major, substantive revision.

I will discuss the plan issue by issue:

1. Impact of logging on deer habitat

The impact of logging on deer habitat is a major controversy in Southeast Alaska, and there is clearly a problem of major proportions with logging at current volumes and with current practices. It is unconscionable that this major public issue has not been dealt with forthrightly and decisively. This issue must be resolved now, in the Regional Plan.

Not only is it unconscionable that the deer/logging conflict has been skirted in the plan, it is amazing. The National Forest Management Act (219.19 c) mandates that goals and objectives in the Regional Plan shall resolve major public issues identified through public participation. This issue cannot be skirted, it must be addressed now.

A. The last sentence in paragraph 1 page 11 seems illogical, and I cannot accept it without substantiation and agreement by ADF&G game biologists. As available winter habitat is reduced, deer will be less dispersed, and increased deer population density should make predation easier.

B. I have problems with the third paragraph page 26. The 'wildlife management program' has no goal regarding deer, because Region 10 has no policy regarding deer other than business as usual for logging, with no more than token regard, if that, for critical deer and wildlife habitat. There is no need to 'provide suitable habitat' when suitable habitat already exists and needs only to be left undisturbed.

3.

G. In para 2 page 32, what is 'commodity use'? Don't use jargon when common language is adequate and clearer to the public. Also, the expression 'wildlife impacts' tells me nothing. It is not to the people of the region who have critical interest in the effects of your program to hide those effects behind excess verbiage and unfamiliar terms. This line should say, "Logging on the scale contemplated will cause a substantial decrease in wildlife populations by destroying habitat."

H. Regional program outputs (P88) makes no mention of wildlife productivity, even though assumptions 1,3,5, & 6 on page 32 place great importance on the availability of wildlife. Wildlife habitat improvement is mentioned; however, 6000 acres of improved habitat is a meaningless number when unproven improvement techniques are used.

I suggest adding the following outputs to the table:

- (1) acres of prime wildlife habitat retained in blocks of functional size.
- (2) acres of prime wildlife habitat destroyed or seriously impaired
- (3) acres of secondary wildlife habitat destroyed or seriously impaired.

J. para 1 page 127 should also state that uneven-aged management practices are also appropriate to maintain old growth wildlife habitat.

2. Annual Timber Yield Levels

450 mmbf/yr is the only timber harvest level considered in the Regional Plan. The '450 mandate' from Congress could possibly be in effect only over the short term, while the Regional Plan is a long range planning document. It is absurd to consider only one extreme harvest level in such a document, in fact several factors suggest that a much lower harvest level should be given primary consideration:

a. Congress directed the Forest Service to report at regular intervals on its ability to offer 450 mmbf/yr. Congress can lower the harvest level, and may be particularly inclined to do so if the Forest Service requests a lower level.

b. A 450 mm³/yr harvest cannot be sustained without decimating deer and wildlife populations and severely impairing or eliminating other forest uses. The Forest Service is bound to multiple use management of the forest, and cannot legitimately avoid pressing Congress for a greatly reduced allowable cut.

c. Post-TIMP timber inventories indicate that TIMP inventories were wildly optimistic. It seems most likely that a forest-wide detailed reinventory would show that the forest cannot sustain the 450 cut. Again, it is the responsibility of the Forest Service to press for a lower allowable cut from Congress to assure that sustained yield can be achieved.

Regarding para 4, page 37, there is no way that I can believe the Tongass can sustain a long term cut of 700 mm³/yr. I don't think that even 450 is sustainable. Any long range yield projections should state the type and quality of timber to be harvested and also the manner and extent to which multiple uses will be protected.

A. Regarding para 1 page 41, accuracy of timber inventories has a major effect on determining the allowable cut. Allowable cut could exceed sustained yield if the data is incorrect.

B. Assumptions 5 & 7 on page 37 are true only if federal funding is available to provide the necessary subsidy for marginal logging, thinning, etc.

C. Some assumptions need to be added on page 41:

(8) currently available timber inventories are inaccurate.

(9) continued subsidies will be needed to supply timber under the 50 year contracts, and additional subsidies will be needed to provide 450 mm³/yr.

D. On page 88 it seems the Forest Service is acting 'above and beyond the call duty' required by ANILCA section 705 by offering a timber supply averaging 464 mm³/yr through 1990 when the Congress states that a supply of only 450 must be offered. The additional offering will certainly be detrimental to other forest uses, and indicate that the Region

10 office has no real concern for multiple use.

E. Under 'Timber Goals' on page 93, add:

(8) Monitor the ability of the forest to sustain an annual cut of 450 mm³ so that reports required by ANILCA section 706 can be prepared early if warranted by conflicts of the annual cut with multiple use.

3. Advanced Rooding

We are absolutely opposed to advanced rooding. Advanced rooding has been used in the past to circumvent public participation in planning for five year timber operating plans for the 50 year timber contracts. Since advanced rooding predisposes an area to logging in the immediate future prior to thorough environmental evaluations of the proposed sale, such rooding is contrary to the public interest. It can only be viewed as an attempt to make other management options for a particular area impossible from economic and planning (in terms of time already invested in sale planning and lack of time to prepare alternatives) standpoints when a timber sale EIS is prepared at a later date.

Advanced rooding has also been used to disguise the true cost of particular timber operations from the public; so that roading costs will not be included in the cost of a timber operation.

Advanced roading is improperly included in the second to the last paragraph on page 131, and should be stricken. Advanced roading has nothing to do with achieving RPS targets. Intensive management, such as precommercial thinning and use of advanced logging systems are useful tools for achieving the targets, but advanced roading is not an intensive management tool.

4. Utility Logs and Marginal Timber

All timber volume utilized by industry, regardless of its classification or the biological growth rate of the stand from which it was obtained, should be included in the allowable cut. Volume from commercial thinning should also be

included in sale quantity. All material which can be used for saw timber or for making pulp should be charged against allowable cut and contract volumes, and should be paid for. Since industry is assured 450 mm³/yr, to the detriment of other forest resources, it is important that every ft³ of wood useable as a raw material by the industry be accounted for.

5. Fisheries

A major limiting factor to the size of salmon stocks is available freshwater and estuarine habitat. Logging, particularly at the current annual yield on the Tongass, will be continually damaging salmon habitat. Salmon habitat is obviously regarded as secondary in importance to timber as a resource by the Forest Service. One need only look at the recent ALP 5 year plan to see that. It speaks of the number of stream miles logged on one side, and of the number of miles logged on both sides, and of the percent risk of mass wasting into streams. Logging a certain volume is treated as the given, and streams in an area must be jeopardized as necessary to get the volume.

Spawning habitat gets some attention from the Forest Service, but rearing habitat gets little protection, if any. Small trickles feeding spawning streams are often not recognized as the rearing habitat they are, and are totally obliterated by logging.

Contrary to the statement on page 23, regulatory and management policies cannot increase salmon stocks, although they might reduce the decrease in stocks that logging will otherwise cause. Habitat enhancement can make some contribution to salmon stocks, but it is questionable that it can balance the damage done to natural habitat forest-wide. In particular, lake stocking is a poor substitute for natural runs since it is not self-sustaining.

A. para 4 page 24: The standards referred to are in the Area Guide, and most have been deleted in the Regional Plan.

B. Add 'logging operations,' between 'because of' and 'community expansion' in paragraph 5 page 25.

C. #6 on page 25 is simply not true, unless buffer strips which are absolutely windfirm are left along all of every stream on both sides and unless all rearing areas, including those used when streams are at flood stage, are scrupulously found and protected. Salmon stocks are now so depressed that any 'adverse effects' are significant when multiplied by the number of streams affected by logging each year and in recent history.

7. Transportation

A statement is made on page 41 of the EIS with which we strongly agree: "The result (of very few intercommunity roads) is a lifestyle characterized by neighborliness, self sufficiency, and a willingness to get involved in community affairs. Many of the hazards of modern life (overcrowding, etc.) are uncommon. This atmosphere is the main reason that many individuals choose to live in Southeast Alaska. Let's maintain that atmosphere! We don't need more intercommunity roads and we don't need new transportation corridors leaving the region.

So why all the emphasis on roads on pages 13 and 61? We Southeasterners don't need or want more roads. I disagree strongly with #4 on page 61. Increased population will not increase the need for roads, except within communities.

I also disagree strongly with #9 on that page. Transportation corridor development is not needed by our economy and would have extremely serious social impacts regionally. Don't play 'God' with our lifestyle by building roads and planning corridors.

#10 duplicates #4 on page 61.

8. Demise of the Area Guide

Treatment of the Area Guide in preparing the Regional Plan is itself an issue of great importance. The Area Guide, which was the product of considerable public participation, has been totally emasculated, and the non-timber forest uses it protected are now endangered.

standards and guidelines. There is no reason that the Area Guide cannot continue to be used since timber planning for Region 10 is essentially timber planning for the Tongass. The Guide should be applied region-wide and expanded to cover the Chugach.

We feel that the description on page 9 of what was or was not included in the EIS is not true. There are very few Area Guide changes which can be called 'minor clarifications'. Changes to the Area Guide were so sweeping that all changes to Area Guide policies should be included in this EIS. Management prescriptions aimed at resolving major public issues have been deferred to 'forest planning'. The elimination of guaranteed policies regarding these major public issues will severely affect the management of non-timber resources throughout the Tongass Forest. Therefore, modification of the Area Guide in the manner contemplated, as a whole, is a major federal action with significant effect on the environment, and the entire modification must be the subject of an EIS, not just a portion of it.

The Area Guide served as the Regional Plan up to the present, except that it didn't allocate Region 10's RPA target allocations to the two forests. The Area Guide should be upgraded to fit the roll of Regional Plan better rather than gutting it and incorporating a few bits and pieces in a totally new plan as is being done.

In conclusion, we find the Draft Alaska Regional Plan and its accompanying EIS to be grossly deficient in function and substance and to be misdirected in its intent. The intent of the plan should not be to pave the way for a 'given' level of timber harvest without adequate consideration for other forest resources, but rather to manage forests of the region for the maximum benefit of all forest resources without any preconceived notions on superiority of one resource ^{over} the others or on the amount of a resource which 'must' be extracted from the forest. ANILCA and the 50 year contracts restrict

the Forest Service's ability to freely manage the forest; however, they do not prevent the Forest Service from advocating appropriate changes in those constraints needed to protect other forest resources, nor do they prevent the Forest Service from performing multiple use management to the maximum extent possible within the constraints.

It is our position that the Forest Service is pursuing timber harvest to the maximum extent possible, but that it is not doing the same for multiple use management. Also, that the Forest Service chooses to ignore critical issues, such as the deer/logging conflict, which involve timber yield rather than attempt to bring about the legislative or legal changes necessary to resolve the issues.

We hope for a change in this defacto Forest Service policy. We realize that this policy was an easy trap to fall into, given historic situations in Southeast Alaska, and hope that the opportunity presented by the regional planning process for getting out of it will be seized.

We have asked for fundamental changes in the Regional Plan, and therefore ask that a second draft of the plan be prepared, rather than a final version, to facilitate further public participation.

Thank you for allowing ample time for preparing comments after publication of the documents.

STATE OF ALASKA

OFFICE OF THE GOVERNOR
DIVISION OF POLICY DEVELOPMENT AND PLANNING
GOVERNMENTAL COORDINATION UNIT

JAY S. HAMMOND, Governor

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November 6, 1981

Mr. John Sandor

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"Detailed Process Guidance, however, was considered but eliminated from study [because] (1) a Forest Service Directives system already exists that provides for procedural guidance, and (2) procedural guidance often requires frequent revision and updating as experience is achieved and new information obtained. Placing such details in the Regional Plan would make revision needlessly cumbersome." (page 9-10, DEIS).

This appears to be in contradiction with the NFMA-FEIS which states:

"The only realistic no action alternative might have been planning as currently practiced according to direction in Forest Service Manual 8200. The continuation of this direction is clearly not what Congress intended by enacting NFMA." (Federal Register Vol. 44, No. 181 Page 53941)

Since the Regional Plan, developed under NFMA, sets precedent for the implementation of this direction in Alaska, we are concerned about the lack of uniform direction for future forest level planning. Besides this procedural concern, we also want to address the following substantive issues.

Area Guide/Regional Plan Policies

The comparative table of Area Guide and Regional Plan policies was very helpful in tracking proposed changes in the Region's Standards and Guidelines. We have observed, however, that many of those standards which have been rewritten for "clarification," have become less specific in nature, and commonly delete analytical or procedural guidance. (See page specific comments). We believe this lessening of substantive guidance will lead to unnecessary confusion when implementing and evaluating the policies. We recommend that any Area Guide policies which are to be made less specific be justified other than by the desire to "clarify" them.

Prescriptive Area Guide policies were identified as inappropriate to Regional Planning and referred to Forest Planning for review or modification. (DEIS Appendix 1, page 1) We question why these Area Guide policies are considered inappropriate for Regional Planning since:

- 1) they represent state-of-the-art knowledge of forest resource management as determined through extensive State, public and Forest Service discussion, and
- 2) the management standards and guidelines found appropriate for the National Forest Management Act (Regulations Section 219.13) are of a prescriptive and detailed nature.

The Regional Plan has developed a process for reviewing the existing Standards and Guidelines at the forest level (DRP page 99). The plan specifically identifies TLMP, Phase 1 as the vehicle to accomplish this for the Tongass forest. We suggest that this process for review of

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U.S. Department of Agriculture
U.S. Forest Service
P.O. Box 1628
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Subject: FOREST SERVICE REGIONAL PLAN DEIS
State I.D. No. AK810806-04ES

Dear Mr. Sandor:

The State of Alaska has reviewed the Draft Regional Plan (DRP) and accompanying Draft Environmental Impact Statement (DEIS) and offers the following comments for your consideration. The Departments of Community and Regional Affairs, Fish and Game, Natural Resources, Transportation and Public Facilities, and the Office of Coastal Management have contributed to the development of our unified statement.

We appreciate the complex planning atmosphere created by the newly established Alaska National Interest Lands Conservation Act (ANILCA) and the National Forest Management Act (NFMA) regulations and the difficulty of incorporating this new national direction while also resolving pressing regional issues. Our recommendations are intended to strengthen the Regional Plan and to improve participation and cooperation in future planning efforts. In addition to our general recommendations, we have also enclosed our page specific comments.

Planning Direction

The major weakness that we see in the document is that the planning process, which is mandated by NFMA to be articulated in the regional plan and then used in subsequent forest level planning, has not been clearly stated or justified. The NFMA and its regulations, as we understand them, set forth a process for the development, maintenance, and revision of forest land and resource management plans. Under the NFMA and the Regional Planning Act (RPA), regional plans are means to communicate national and regional direction for forest planning... (page 4, Regional Plan).

We anticipated that a more detailed analysis of this national direction and its application to Region 10 would occur in this document, and, in fact, would be a major goal of the Plan. The Forest Service seems, however, to have rejected this approach and decided that existing planning mechanisms are adequate to guide forest level planning efforts. The Plan states:

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prescriptive policies be applied in the Chugach forest as well. It would also appear preferable to not defer the existing Area Guide policies to the forest level, but to incorporate them into the Regional Plan. Then, the process identified on page 99 of the Plan can be used to review the guides at the forest level and to change those policies if necessary. This would acknowledge the considerable and cooperative effort that resulted in the Southeast Area Guide, while giving appropriate forest level discretion. At a minimum, we recommend that the Forest Service develop an interim document which contains the "deferred" Standards and Guidelines and outlining the review process to be followed at the forest level if changes are contemplated. This would avoid confusion as to the Standards' and Guidelines' applicability until reviewed and/or modified by forest planning.

Issue Identification and Resolution

Issues were evaluated against criteria to determine which issues or concerns would be used to guide preparation of the Regional Plan. The second of three issue evaluation criteria states:

"The issue is regional in scope and cannot be resolved in either a Forest Plan or at the national level...and can be partially resolved within the existing authority of the Regional Forester." (page 2, DEIS, page 8 DRP)

Through this evaluation process, eight major public issues and one "management concern" were identified as relevant to regional planning. Yet, the summary of these identified issues (Chapter 1 DRP, DEIS) eliminates six of the issues for further consideration, citing passage of national legislation or forest planning as the places for their resolution. We recommend a review of this issue identification process, with particular attention given to the following two major State concerns.

The conflict between old growth timber harvest and wildlife habitat remained an identified issue through the evaluation (DRP page 14, DEIS page 8). However, the old growth issue analysis concludes "Resolution of this issue is not within the scope of the Regional Plan." (DRP, page 11, DEIS p. 4). We believe that the Regional Plan, a directive document for two National Forests which is responsive to the public interest, should address this issue. To the extent resolution is found to be inappropriate for Regional Planning, the reasons for this decision should be displayed and interested readers should know which specific forum will be used to resolve the issue.

Another issue which we believe should have been included in the Regional Plan issue resolution section is the timber harvest level. The issue of timber production levels concludes that the harvest level which can be sustained on National Forest Lands has been "resolved by existing legislation." (DRP page 12, DEIS page 5). The State recognizes the mandates of ANILCA and the 4.5 billion board feet indicated therein. However, we do not believe this has permanently settled the issue. In ANILCA, Congress also

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told the Forest Service to evaluate the 4.5 billion boardfoot quota and report back on its findings. (ANILCA Sec. 706) A more detailed expression of the State's position on the required evaluation appears in my enclosed October 12, 1981 letter to you on the draft Study Plan required under Sections 705 and 706 of ANILCA. In that letter, I also outlined State concerns over interpretation of the 450 million board feet annual and 4.5 billion board feet per decade target harvest figures cited in ANILCA. Although the level of cut has been established, the State is very attentive to how the 4.5 billion board feet target is interpreted and implemented and is committed to its objective re-examination under sections 705 and 706. We believe that the implications of these two sections should be made clear to readers of the Regional Plan.

Summary

We recommend the Regional Plan provide:

- 1) an analysis of changes in operation procedures in Region 10 resulting from NFMA regulation and ANILCA direction and methods for Regional implementation of these new procedures.
- 2) the incorporation of prescriptive Area Guide policies into the Regional Plan with procedural direction for their review and modification in Forest Planning. As a minimum, these policies and direction should be developed into an interim addendum to the Plan pending a forest level review and/or revision.
- 3) an analysis of the wildlife habitat/timber harvest regional issues, and a display of the mechanism for subsequent resolution of this issue at the Forest level.
- 4) a more complete analysis of the national direction for the timber harvest level and related studies, and identification of the Regional issues surrounding timber harvest levels which remain unsettled or which require further evaluation and analysis.

Shortcomings are to be expected in a plan drafted since the recent passage of such significant legislation as Alaska has witnessed. We have attempted to identify those gaps that we believe will become increasingly evident and important as subsequent forest planning actions occur (i.e., TLMP revision in 1983, Chugach plan to be completed by 1985). The resolution of appropriate regional issues, and the identification of uniform forest planning direction from the region is of considerable importance to all interested parties.

The State appreciates this opportunity to comment on the Regional Plan and to contribute to the development of what we believe can be a more responsive and effective policy document. We look forward to the continued State-federal cooperation which you have helped foster.

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November 6, 1981

Sincerely,



James M. Souby
Director

Enclosure

Enclosure to State of Alaska's November 6, 1981 letter to John Sandor on the Draft Alaska Regional Plan.

The following page specific comments are grouped according to the area of State comments. All page references relate to the Draft Regional Plan unless the DEIS is cited.

PLANNING DIRECTION

1. Page 3 (fourth paragraph) Under "Stage 2: a." In the document we could not find Region 10's share of Sitka black-tailed deer output. Reference is made to wildlife habitat improvement in terms of thousands of acres. Improvement was not defined in terms of a base nor was an explanation provided as to how these improvements were determined.
- Under "Stage 2: b." The last sentence, "A test of relevancy is whether the forests need the issues resolved at the regional level to guide their planning" would be more meaningful if a resolution of issues were possible somewhere in the planning process.
2. Page 13 and 14 "... Update of Southeast Alaska Area Guide." The Forest Service admits that resolution of the wildlife issue would require "major policy changes", however, they also state that the Regional Plan is not the place for resolution. Again, we need to know exactly where this issue will be resolved.
3. Pages 88-89. No mention is made in these tables of the output goals for wildlife. We assume that wildlife populations, particularly those species like deer, will decline. The only output for wildlife in the program is habitat improvement which, in light of the lack of research effort to assess its effects, could be misleading. As pointed out in NFMA regulations of 1979, 219.10 (b) (9), maintenance or improvement of fish and wildlife are points that should be addressed in the Regional Plan.
4. Pages 88, 89 and 90. This distribution of Regional program targets and dollars to Forests and areas lacks economic, social or environmental analysis, and alternative program consideration. [NFMA regs. 219.5(f) 1, 2, (g); (h); (i)]
5. Pages 102-108. The same figures are used for "Anadromous Fish Improvement" for each of the forest areas. We would be interested in knowing upon what these figures are based and whether the differences in the potential of each of the four areas have been considered.

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AREA GUIDE CHANGES

The following Area Guide Policies have been referred to Forest Planning. See recommendations.

OEIS Appendix page	Guide #	Program
1-8	#1	Water
1-9	#4	Water
1-11	#6	Fish
1-12	#7b	Fish
1-15	#9	Fish
1-20	#5	Wildlife
1-20	#6 details	Wildlife
1-21	#7	Wildlife
1-23	#8	Wildlife
1-24	#10	Wildlife
1-25	#12	Wildlife
1-27	#3	Estuaries
1-28	#4 a & b (1-7)	Estuaries
1-33	#2	Timber
1-35	#3a	Timber
1-41	#5	Mineral and Geology
1-45	#14	Recreation
1-46	#19	Recreation
1-50	#1 paragraph 7	Transportation
1-50	#2	Transportation
1-50	#3	Transportation
1-51	#5	Transportation

Additional OEIS comments on Appendix 1 follow.

1-8	#2	Should be in ESTUARIES AND TIDAL MEADOWS. The parameters for assessing these affects, (a) organic accumulation and leechatches, have been deleted. We do not believe this clarifies the Standard. An important source of data for the upcoming State tidelines planning, which will focus on potential log dump site identification, is being eroded.
1-11	#5	Weakens statement from existing Area Guide policy, "designates" vs. Regional Plan "considers"
1-15, 1-16		Pages out of order.
1-23	#9d	Reason for change unclear.
1-32	#6	Reason for change not stated.

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1-33 and 1-34	#2 #3b,e	The NFMA regulations which replace area guide standards should be displayed.
1-36	#7	Relationships between #3 & #7 unclear
1-38	#14	We encourage you to include Area Guide Policy #14 with the exception of the words "...small clearcuts and..."

HABITAT/HARVEST (Planning Direction comments 1, 3, 5, & 10 also apply)

- Page 11 (first paragraph). Extensive study of predator prey relationships in old growth vs. second growth has not been done. However, initial work on Vancouver Island suggests that as islands of old growth become small and fewer, deer, during heavy snow years, will congregate in these stands. Predators such as wolves can thus concentrate in these areas and conceivably have a greater than normal impact on the deer population.
- Page 26 third paragraph). We refer the drafters of this document to the Department of Fish and Game's Division of Game's policies on introduction of non native wildlife. ("Alaska Game Management Policies", Alaska Department of Fish and Game, May 4, 1973)
- Page 27 (second paragraph). Old-growth forest has been identified as important winter deer habitat in southeast Alaska; on Vancouver Island, British Columbia; on the Olympic Peninsula, Washington; and in western Montana. The reasons are: uneven-aged, old growth has a well developed understory which provides abundant forage for wintering deer. During periods of snow accumulation, these forests with their high, broad canopies intercept significant amounts of snow. Snow depths under old growth canopies are often 1/2 to 1/3 as deep as accumulations in openings such as muskegs or clearcuts. Although clearcuts initially produce an abundance of forage, during winter snow accumulations they are buried, thus forage is more available in the forest. Once a clearcut becomes dominated by conifers (about 15-25 years in southeast Alaska), deer forage is eliminated or greatly reduced throughout the rest of the rotation. For 75 to 85 percent of the rotation period deer forage is essentially eliminated. Thus, even in areas where snowfall is minimal, removing true uneven-aged old-growth forest significantly reduces deer carrying capacity. Snow is obviously a greater factor, where the snow is deeper.

It has been suggested that recent research findings from Admiralty and Chichagof Islands are not representative of the Tongass. Interestingly, work by Rose on Annette Island and Ooer in Thomas Bay support the findings that uneven-aged old growth is important winter deer habitat.

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The fact that some small islands, which have been heavily clearcut, currently have high deer populations, does not mean that old-growth forest is poor habitat. Level, Sokolof and similar islands are in early (and productive of deer forage) seral stages. We would expect deer populations to do well, considering that the last five to ten years have been comparatively mild in terms of winter snowfall. However, following a heavy winter or closure of the conifer canopy, the populations can be expected to decline sharply. Basically, the deer-old growth relationships described for Alaska, B.C. and elsewhere suggest that old growth is more productive deer habitat than even-aged second growth during anytime of the year and that old growth is more productive habitat than clearcuts when snow accumulates.

- Page 29 (second paragraph). The Regional Plan states "The most important research needs are for information on species/habitat relationships to improve and validate the wildlife habitat relationships program and the development of silvicultural treatments that benefit wildlife." Current studies on black-tailed deer/forest habitat relationships need to be expanded to determine how deer and other old growth dependent species respond to different timber harvest techniques and prescriptions, or adapt to modifications in their environment.
- Page 29 (third paragraph). "Provisions are made in each timber harvest area to retain a portion of old-growth forest habitat to meet wildlife and other resource needs." This statement implies that the retention factors, selected by the Regional Forester, are sufficient to supply wildlife as it now exists. More correctly, it should be stated that retention of a portion of the old growth will probably maintain significantly reduced populations of wildlife. More flexibility is necessary for on-the-ground resource assessment and site-specific determination of retention areas. The Regional Forester should provide the process for these site determinations.

Additionally, many of the same acres are claimed as satisfying the needs of different resources. Thus, in spite of the language stating that wildlife will be "treated no more or less equal" than timber, it, as well as other non-timber resources, is afforded only secondary values.

- Page 36 (second paragraph). There is no question that during snow-free winters and other seasons of the year, these low-volume, generally non-commercial forest stands are used by many species of wildlife. We do want to point out that during winters with heavy snow accumulation these stands are of no use to those species that are present, such as deer. These low-volume stands do not replace the high-volume stands that do provide the best habitat during heavy snow winters.

7. Page 117. Item 5a. The statement: "The FHMU is managed as a resource no more or less important than other resources" concerns us because the value of the fish habitat in certain areas exceeds the value of other resources. Special considerations should be given to protecting the fish habitat in these instances. NFMA regulations, Sec. 219.13(e), provide a discussion of this habitat area which is more detailed than the Regional policy.

8. Page 120.

- Item 5. In November of 1978 the Commissioner of the Department of Fish and Game sent a memo to the Regional Forester outlining the Department's stand on desired levels. This position has not changed since then.
- Item 6. We refer the Forest Service to the Department's policy manual for our position on species introduction and transplants.
- Item 7. Again, we emphasize that policies and guidelines for wildlife-old-growth forest relationships as well as their resolution should be spelled out in the Regional Plan.
- Items 7a and b. We encourage action on these standards and guidelines.
- Items 7c and d. Tremendous amounts of data are needed before meaningful standards can be set. In addition, NFMA regulations are rather explicit in referring to maintenance and improvement of habitat for indicator species [in 219.12(g)].
- Item 7e. We encourage the Forest Service to remain cognizant of cumulative impacts on wildlife habitat and apply the concept to timber sales throughout the Alaska Region.
- Item 9. We concur

TIMBER HARVEST LEVEL

1. Page 3 (first paragraph). The 1980 RPA recommended outputs for timber were based upon 1977 figures. It is our understanding that present timber inventory figures can be interpreted to suggest that the 1977 timber volume figures were overestimated.
2. Page 12 (second paragraph). The details of the process for determining "Departure" from substantial yields should be outlined for general information.

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3. Page 37 (fourth paragraph). Current timber inventory figures strongly suggest to us that timber volumes were overestimated when timber harvest levels were set for TLMP & ANILCA. A factual portrayal of the latest inventory volumes and how they might extrapolate to the rest of the forest, would be helpful. A discussion of the inventory update process to support the congressional report required by ANILCA would also be useful.

OTHER

1. Page 59 (first paragraph). We agree that the State does have responsibility for "planning, project development, design and construction" of regional highways and facilities. This is especially true since federal budgetary constraints and policy are limiting the role federal transportation agencies can play in developing transportation facilities.

In this same paragraph we ask that the phrase, "regardless of land and resource allocations" be deleted. We do not believe decisions regarding intercommunity access and State transportation facilities can be made independent from these allocations. A broader policy issue that has surfaced and is being addressed is the question of "what is the appropriate State role as a provider of public goods and services to support private resource development?".
2. Page 123 (first paragraph). We suggest that you add the Department of Natural Resources to the agencies with which you coordinate the planning and decision making process. They have statutory responsibilities in estuaries and are now beginning work on an area plan for southeast Alaska tidelands.
3. Page 151. This is an area in which the Department of Fish and Game is willing to work very closely with the Forest Service. We concur that adequate monitoring and evaluation of Forest Service activities are essential. The Office of Coastal Management is also interested in coordinating with this program.
4. Appendix C. Appendix C lists relevant legislation and should be amended to include the federal Coastal Zone Management Act (CZMA) of 1972 and the Alaska Coastal Management Act (ACMA) of 1977. The CZMA mandates that federal activities in the coastal zone should be conducted, to the maximum extent practicable, consistent with approved state programs. The ACMA established the Alaska Coastal Management Program (ACMP) which was federally approved in 1979. The ACMP includes guidelines and standards for the development of local coastal management programs and the conduct of activities in the coastal zone. As the State and the Forest Service have recently concluded the development of an MOU regarding coastal management, the Forest Service may wish to attach the MOU for regional guidance to forest supervisors as an appendix to this Plan.

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5. Appendix D. We recognize that the Regional Plan should fully incorporate the provisions of ANILCA and ask that Title XI of ANILCA (Transportation and Utility Systems, In and Across and Access into Conservation Units) be summarized and included in this appendix.

FEDERATION OF WESTERN OUTDOOR CLUBS

Established for Mutual Service and for the Promotion of the Proper Use, Enjoyment and Protection of America's Scenic, Wilderness and Outdoor Recreation Resources

1980-1981



FOREST SERVICE O.I.

P. O. Box 71
Petersburg, Alaska 99833
November 1, 1981

Jobs A. Sador
Regional Forester
USDA Forest Service
P. O. Box 1628
Jesseau, Alaska 99802

ATTENTION: Regional Plan

Dear Mr. Sador:

The Southeast Area Guide and the Tongass Land Use Management Plan were the best I have read in some 25 years of reviewing Forest Service documents. There were serious deficiencies in them, however, and I had hoped these would be addressed and corrected in the Regional Plan.

I am dismayed to find, however, the changes proposed will completely gut the policies outlined in these documents. Instead of correcting the overemphasis on timber as the dominant resource in the Tongass Forest, we find a preferred alternative that will convert the forest to a pulp tree farm.

No adjustments have been made in the allowable cut to conform to the re-inventory figures that show a much lower timber volume than that of TLUMP. No adjustments have been made in allowable cut to allow for necessary wildlife habitat or for protection of the fishery.

The Forest Service, while stressing the mandated 450 million board feet annual cut, is ignoring that part of the Alaska Lands Act, Sec. 706 (a) that requires reporting as to the ability of the land to maintain this cut. It also ignores 706 (b) as to what is to be done to protect the fish and wildlife in the forest.

The Forest Service has to accept responsibility for the mandated 450 million board feet cut. This was presented in TLUMP as accurate data and it may well have been the best information available at the time. Now the Forest Service needs to recognize and report on the reinventory figures as they pressed.

An apparent attempt has been made to show that the available timber base has been reduced by the creation of the wilderness areas. TLUMP, however, provided for a little more acreage than that created by the Alaska Lands Act. It also provided for more acres of forest. After all, the only really good forested areas designated as wilderness are Admiralty Island and Petersburg Creek.

3.

Issue: Possible Adverse Impacts to Fisheries from Timber Harvest

The most serious weakness in the Southeast Area Guide was the failure to provide for wild firm leave strips along salmon streams. This issue has still not been addressed and we can expect continued degradation of fish habitat. The assumption made in page 25, is simply not true. Clearcutting in itself decreases the available fish habitat.

Forest Service policies are concerned with "enhancement" and "restoration" when the primary concern should be protection of the natural stream environment and watersheds. To practice very little protection has been given to fish streams.

On page 24 we find the statement that "maintenance of a productive habitat for sport fish can be achieved through existing standards." Let us find these existing standards, inadequate though they have been through lack of implementation or inadequacies, have been either deleted or referred to Forest Planning which is virtually the same thing. (DEIS 1-10-1-17)

Existing standards and practices have not maintained a productive sport fish habitat in many formerly important streams. Among these I mention the following:

Sarkar	Harris River	Luck Lake
Thorne River	Hatchery Creek, Lake Bay	108 Creek
Salmon Bay	Red Bay	Stannay Creek
Ratz Harbor	Calder Bay	Kadaska

Natural habitat quality and quantity will diminish primarily due to logging activities along with other land use development.

Giving fish habitat needs equal consideration with other resources" is not the same thing as considering them "no more or no less important than the other renewable resources."

All of the Area Guide policies omitted should be reinstated. The policies need to be strengthened and implemented. The issue of leave strips along streams needs to be addressed.

The Regional Plan does nothing to resolve the issue, contrary to NFMA and what protective policies we had have been eliminated.

Issue: Conflicts Between the Harvest of Old Growth Timber and Wildlife Habitat (p. 10 - 11, Regional Plan)

Other than recognizing that this is an issue, the subject is dismissed on the pretext that it is out within the scope of the Regional Plan. This has been identified as a major public issue and to comply with NFMA it has to be addressed.

The Wildlife Section of the Area Guide was one of its best. Changes made to these policies (DEIS 1-19 - 1-25) do nothing to resolve the issue. In some instances intent is changed with the stated purpose of "clarification". To others it is referred to Forest Planning that is the same thing as deleting it.

The best way to "improve" wildlife habitat in southeast Alaska is to leave it alone.

2.

FEDERATION OF WESTERN OUTDOOR CLUBS

While the wilderness area we got through the Alaska Lands Act are beautiful and well deserving of protection, let's face it. We got a lot of rock and ice. The main area where acreage was increased by ANILCA are Russell Fjord, South Baranof, Stikine LeCoste, Tracy Arm.

Related to the mandated 450 million annual cut, is the issue of the \$40 million dollar subsidy. The Forest Service needs to recognize that the day may come when budgetary realities require the U. S. treasury to stop the subsidy to an export industry, half of it foreign owned.

Another issue the Plan fails to address is that of the Reid Brothers timber sale lawsuit. I have in the past personally protested the awarding of timber sales to what were so obviously "dummy" corporations. The Forest Service cannot possibly have been unaware of what was going on. The issue of cancelling these 50 year contracts should be addressed.

The National Forest Management Act, Sec. 14 (a) (1) (2) (3) requires the Secretary of Agriculture to take such action as he may deem appropriate to obviate collusive practices. The Regional Plan should address how the Forest Service intends to prevent such abuses in the future.

Almost all of the small independent loggers and mills were put out of business by the collusive practices of LPK and ALP. Now we find the Forest Service still reluctant to make timber sales for the really independent small operators still surviving.

In the Bohemia timber sale scoping document, for example, we find the following statement that:

"First development activity usually precludes smaller timber sales due to high initial investment costs."

With such attitudes the Forest Service helps put small operators out of business.

AREA Guide

The major deficiency in the Regional Plan is a thorough "gutting" of Southeast Area Guide policies. Heavens knows the Guide is not perfect, as many of us who worked hard to secure nitrogen policies realize. The main problem with the Guide, however, is that few if any of the policies have been implemented in practice.

Area Guide policies should have been the foundation on which the Regional Plan was based. Forest planning should take these guidelines, address the concerns expressed by the public and by other federal and State agencies, strengthen the policies and guidelines and make them more specific to each area of the forest.

What is being proposed, however, in a complete revision of the Guide. This does nothing to meet NFMA requirements for a Regional Plan. Since the Regional Plan is apparently intended to replace the Guide, the prescriptive standards and guidelines should not have been eliminated. Leaving decisions as to guidelines for the protection of other resources; soil, water, fish and wildlife habitat, etc., to local forest supervisors and district managers will result in disaster.

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4.

The Forest Service in deceiving the public in indicating that "silvicultural and thinning prescriptions" to even aged 100-125 year old timber stands can even approach the wildlife requirements provided by old growth forests.

The Alaska Department of Fish and Game, the Board of Game and the Wildlife Society have all requested that cutting of old growth forests needed for wildlife habitat be deferred.

As noted earlier, it was Forest Service timber volume figures in TLUMP that led to the mandated 450 million board foot yearly cut. The Congress now needs to be advised that these figures are inaccurate. There is simply not enough volume available unless other resource values, primarily wildlife, are written off.

Not only will more restrictive regulations be necessary due to hunting pressure (Regional Plan, p. 32. 3.) but will be primarily due to reduced game populations resulting from loss of habitat.

The section on research programs p. 78-84 doesn't give any idea of actual research programs. For example, what is Heavens's name does b. on page 80 mean?

b. Wildlife habitat. The habitat requirements of many species of game and non-game animals need to be known to assess the effects on habitat of such activities as timber harvesting. Some activities that are destructive to habitat if misapplied may have negligible effects if properly applied. Certain practices have the potential for improving habitat.

If such information is available, the research supporting this statement needs to be summarized and the reference listed.

Unfortunately, the really significant research that has been done on the impact of clearcutting on deer is being ignored in practice. Any research that has implications for reduction of timber harvest is ignored or buried in the files. Some effort is even being made to discredit the studies in which the Forest Service participated.

At the same time we see incomplete and inconclusive studies used to justify continued bad timber practices.

The section on Wildlife, page 92, again says nothing of the need to protect wildlife habitat. #6 for example, provides for encouraging research but if some old growth is not saved during the time the studies continue, the whole exercise will have been a waste of time and money. Enough is already known of the dependence of deer on old growth forest to halt logging of winter habitat.

Wald eagle (Regional Plan, p. 121. 8)

Fish and Wildlife Service research indicates that the 100 meter zone around eagle nest trees is inadequate. The Forest Service needs to bring its policy for protecting nest trees into line with these research findings. Eagles also require perching trees and these are not always in the immediate vicinity of the nest. These need to be identified.

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The section of the Area Guide on Estuaries and Tidal Meadows was one of the good ones. Rather than using these policies and guidelines as a base, the Forest Service has again eliminated the protective provisions with the justifications of "clarification" or referral to Forest Planning.

There is certainly nothing on page 93 to indicate how tidal meadows and estuaries are to be protected in forest planning.

Whether the Forest Service recognizes it or not, management of our estuaries is a major issue and the policies in the Guide should be retained and enforced. Badly needed are the Guide policies in regard to log transfer and storage sites. Few if any of the applications for these sites meet the Guide criteria. Is this the reason the policies are being eliminated?

Non-conforming sites, even those where grounding occurs at every low tide are not being phased out.

Current practices have caused damage to estuaries and marine life. There is also damage to logs by teredo and other marine borers, loss of logs in storage and towing. The pulp mill in Sitka has complained of damage to equipment from salt in the logs. The obvious solution is dry land storage and barging. It is becoming increasingly difficult to find an unspoiled bay or cove in southeast Alaska that has not been logged, has no logging camp in it or is not being used for log storage.

Private timber companies in British Columbia are facing the problem and are converting to barging operations. My impression is that the timber industry here does not want to make any further long term investments. They want only to "cream" the best of the timber from our forest, amortize their investment and get out.

Timber

Reading the Regional Plan and the accompanying DEIS makes it obvious that Multiple Use in the Tongass is to remain a myth. The whole emphasis of this plan is to get out the 450 million board foot annual cut.

The fact that this will damage almost all other forest resources, contrary to the Multiple Use and National Forest Management Act is not recognized. Clearcutting, as practiced, has not protected soil, watershed, recreation, scenic or fish and wildlife values. On steep unstable slopes that have been cut, the timber resource has not been maintained in a productive state.

Area Guide policies should have been retained and implemented on the ground. Using the excuse that NFMA regulations replaced the Area Guide policies (DEIS 1-33) is a poor excuse for eliminating those policies, particularly 2. a. - d.

The management intensity outlined in the preferred alternative will convert Alaska's National forests into pulp tree farms. There is no way this can be done without sacrificing our fish and wildlife.

It is useless to talk (p. 4, DEIS) of the Forest Service being fully committed to working with the Department of Fish and Game in resolving the logging/wildlife issue and at the same time plan for tree farm management that will eliminate wildlife habitat. There is no way the

deficits and budget cuts, it will be very surprising if the Congress does not eventually stop this drain on the federal treasury. Low stumpage constituted a subsidy to the industry even prior to a passage of the Alaska Lands Act. Stumpage prices need to reflect market values. As noted in the Reid Bros. timber sale lawsuit, collusive practices resulted in non-competitive bidding and kept prices low. If the industry had to pay a fair price for logs and scaling was done at the site perhaps there would not be so much waste and the wood cut would be utilized.

On page 37 it is implied that the 340 million subsidy is for advance roading. This is inaccurately portrayed as an intensive management tool and it is not. It is just another subsidy to make deficit sales attractive to timber companies. Pre roading is also a way to remove areas from consideration as wilderness or LUD II classifications.

All trees harvested should be included in the allowable cut and counted toward the 450 million board foot cut. Utility and cull logs are used for pulp in any event and this gives the timber industry a pulp wood supply over and above the 450 million.

Other issues not addressed are:

Whether the cheap timber from subsidized federal sales may not compete unfairly with that from private lands where the owners have to make a profit.

Whether the 50 year timber sale contracts should be cancelled as a result of evidence produced in the Reid Bros. timber sale lawsuit.

The need to renegotiate these 50 year contracts as required by NFMA in the event they cannot be cancelled outright.

Forest Pest Management, Regional Plan, p. 57

There is a need to recognize that a change from even-aged management to a different silvicultural system that maintains uneven-aged stands will reduce the potential for serious insect attacks.

Another need is to recognize that clearcutting results in the loss of insectivorous birds that play a major role in natural insect control.

Use of pesticides also results in a decline in insectivorous birds and the destruction of predatory insects.

Soils

Timber sales go on in spite of recommendations by soil scientists that soil damage will occur if certain slopes are logged.

There should be no logging or road building on slopes greater than 75% regardless of approval by Forest Supervisors. All over the Tongass we see logging and roads on these oversteep slopes. We also see erosion, landslides and gullying. We see poor regeneration.

In the DEIS (1-5) we find that specific provisions in the monitoring and inventory process for soils have been eliminated. There is no way this can be justified as "clarification" or with the excuse the content is included in the Timber, Fisheries and Wildlife elements.

The Area Guide policies themselves were inadequate in practice. They need to be strengthened to actually provide protection for soils, the basic forest resource. More than anything else the policies in the Guide need to be implemented. They should certainly not be dropped.

preferred alternative can be said to meet wildlife needs.

NFMA specified 100 acres as the maximum size limit of created openings (Regional Plan, p. 128) yet wildlife biologists have stated that 40 acres should be the maximum size if wildlife needs are considered. In addition to this clearcut size, according to the discussion on page 131e 4., an area adjacent to a clearcut can be logged when trees in the cut over area have reached 5 feet in height!

Just what is meant by 3. p. 129 on Dispersal and size Variation of Tree Openings?

"Openings will be located to achieve the desired combination of multiple objectives. Distribution of openings over time will conform to a total compartment multi-entry layout plan and be scheduled taking into consideration the assumptions used in the analytical allocation model."

This is gibberish. It should be rewritten in clear, concise language to say just what the Forest Service intends to do. In how many years, to be precise, will there be no old growth forest left in an area?

On page 37 of the Regional Plan we find the following:

"The maximum sustained timber harvest for lands being managed for timber production (with constraints applied to meet multiple-use objectives) is approximately 700 MMBF per year, long-range sustained yield. This will not be obtainable until all the regulated commercial forest land is under management...."

I interpret this to mean that all the LUD III and IV and probably most of the LUD II lands will have been cut over by the end of 110 years.

There are certainly more economical and less destructive ways to produce pulp than by logging a virgin forest or waiting out a 100 - 120 year rotation period. It also makes no sense for the Federal government to be subsidizing pulp production.

The Forest Service has to face the fact that when the old growth forest is gone, the good sawlogs will be gone with it. These sawlogs from old growth are the forest product in demand. Timber from second or third growth in Washington and Oregon is not producing good lumber. Haven't you seen 2 x 4s with only three sides, plywood with pitch pockets and large grain boards? There is no use in pretending that the Tongass on 100 - 120 year rotations is going to produce lumber that will be in demand pulp yes and particleboard probably but this can be produced much more easily and cheaply in areas with shorter rotations. So whether the cut is 450 or 700 million annually, you are still not going to have lumber!

As logging operations move more and more onto marginal land it is very questionable that even 100 - 120 year rotations can be maintained. I have seen 12 inch spruce that was over 100 years old. Perhaps pulp logging of these small trees, even if subsidized, can be profitable but I doubt it.

The question of a possible future loss of the federal subsidy needs to be discussed. How will the timber industry operate? What stumpage will be required? Who will pay for the roads? With present federal

Water (1-3 -1-9, DEIS)

Again, on the grounds of clarification, the Forest Service has deleted specific policies that are needed to protect water quality. These changes do nothing to "clarify" and are contrary to NFMA requirements.

Air

The discussion on air should at least recognize its poor quality in the vicinity of the two pulp mills and near at least one cent mill. It was forest service policy in the first place that brought these mills to southeast Alaska. The least that can be done now is to recognize some of the adverse effects of this policy. More is needed than evaluation of local sources. Trees are being damaged and killed in the vicinity of both mills. Airshed integrity is already being violated.

Economic Development and Social Stability

A number of issues are ignored here. The Forest Service first of all needs to face the fact that the Tongass contributes nothing to the national supply of wood products.

The timber industry rather than contributing stability to some communities has caused a boom and bust situation. Compared with communities with a diverse economy (Ketchikan and Wrangell, for example, that have depended too much on pulp and cant mills have found their own economy fluctuating with world market demands for lumber and pulp.

The type of timber industry that developed along with the collusive practices of the pulp mills, actually contributed to social instability by forcing local mills and logging operators out of business. This further contributed to dependence on a single industry economy.

The Forest Service needs to update its information on the issue of "Balance of Trade." The Tongass Forest does not exist in a vacuum. It has to be viewed in the context as part of the timber industry of the Pacific Northwest. As long as we continue to export raw materials, pulp and cants, and import finished lumber and "newsprint" mostly from Canada, it is highly unlikely we can have anything but a deficit in the balance of trade.

Human and Community Development

It will be a refreshing change indeed if the Forest Service does begin to coordinate its activities with local community desires.

To date, in spite of Area Guide policies, every small community that has opposed a Forest Service activity has been ridden over roughshod.

The change in wording (DEIS 1-2) is not clarification. 2.b. is a change in the direction the Forest Service will take in cases where its programs conflict with community desires. To identify and consider is not the same thing as making community preferences...an integral factor in Forest Service decisions...

The Area Guide requires that "alternatives developed during the planning process must reflect community needs and preferences..." This is not the same thing at all as 2.c. that "alternatives will reflect community needs and preferences." Obviously the Forest Service intends to circumvent local concerns if they stand in the way of timber sales, roads or other development. This is contrary to NFMA.

Recreation

Forest Service policies on lands classified as LUD II should have been discussed. These lands are very important for the future of roadless recreation. Present policies appear directed toward either disregarding or eliminating this land classification.

The section in the Regional Plan, p. 137-139, says nothing as to how the Forest Service intends to implement any of the policies needed to protect recreational values. I suspect # 18 and 19 on page 138 regarding "non recreational developments" will have the most weight.

11 has never been implemented and it needs to be. Our anchorages have been steadily lost, small boat routes are largely logged, recreational beaches in some areas are piled high with drift logs and once great sport fish streams and lakes have been clearcut to the banks. Trails have been wiped out by logging or have been replaced by roads. Under Transportation, p. 81, 8, the assumption is made that recreational boating will continue to increase. Something needs to be done to protect our remaining unspoiled bays and anchorages.

To the contrary an effort has been made in timber sale environmental statements to sell the public on the recreational values of logged lands.

Wilderness

Consideration needs to be given to the management of those areas classified LUD I in PLUMP and not included in the Alaska Lands Act as wilderness.

Transportation

The forest service equates transportation with roads. Why?

Public and community response to the Preliminary Transportation Plan for Southeastern Alaska was the "recommendation that attention be directed at maintaining and improving the region's existing air and ferry service."

The recommendation made by the study team, Southeastern Alaska Transportation Plan, June 1980, p. 6-10, was as follows:

"...that regional demand for surface transportation between communities in Southeastern Alaska be met by improving services provided by the Alaska Marine Highway System."

State of Alaska response to the 1974 DEIS for the Petersburg to Kake road proposal pointed to the many negative impacts of road construction, among them:

human activities causing fire, litter and improper garbage disposal resulting in problem bears

decline in the quality of sport fishing due to increased pressure

loss of wildlife and wildlife habitat with decrease in the quality of the hunting experience

the amount of wildlife and wildlife habitat are inversely dependent on ease of human access.

the current need for a highway is not commensurate with the anticipated construction and environmental costs.

In conclusion, there is no question that the changes made to Area Guide Policies by the Regional Plan are major and completely gut the protective policies of that document. It is a completely unsatisfactory substitute for the Area Guide and if these changes are to be made, an Environmental Impact Statement is required.

This plan needs to be re-written incorporating and strengthening the Area Guide policies and guidelines and adding those policies required by NFMA.

The Area Guide was developed for the Tongass and its policies should not be scrapped.

Sincerely yours,,

Diana M. Saade
Mrs. Dixie M. Saade

vice president for southeast Alaska, Federation of Western Outdoor Clubs

Robert T. Baskie
Box 71
Petersburg, Alaska 99833
Nov. 3, 1981



THE WILDERNESS SOCIETY

FOUNDED IN 1935

6 November 1981

John A. Sandor
Regional Forester
ATTN: Regional Plan
USDA Forest Service
PO Box 1628
Juneau, AK 99802

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FOREST SERVICE O.I.

Dear Mr. Sandor:

The Wilderness Society has reviewed with interest the Alaska Region Draft Plan and Draft Environmental Impact Statement. We appreciate the opportunity to make known some of our concerns and offer suggestions for your consideration in the Final Plan.

Soil, Air and Water

We strongly support the Forest Service's programs for monitoring soil and water degradation resulting from land management activities and stabilizing and restoring areas where damage has occurred. "New methods for erosion and sediment control" (DRP, p.22, paragraph 4) are a substitute for prevention, however, and a strong program and budget commitment needs to be made to identifying and mapping unstable and erodible soils to preclude any damaging development. Considering that the fisheries constitute a major portion of the Alaskan economy, the same sort of preventive inventory and close monitoring should be done on highly sensitive fish habitat throughout the national forests as well as on municipal watersheds.

Fisheries Habitat Protection

On p.25 the Region Plan makes the assumption that fisheries habitat quantity and quality will diminish because of community expansion and other permanent land use developments and that remaining habitat will have to support all desired level of fish production. This makes it absolutely essential that the Forest Service achieve its goal (DRP, p.92) of maintaining and enhancing the capability of National Forest lands and water to produce and sustain fisheries populations as a compensatory measure for areas where habitat quality has been or will be diminished. The Draft Plan further states (p.25) that no significant

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John Sandor, Regional Forester
U. S. Forest Service
Box 1628
Juneau, Alaska 99802

Dear John:

It is with much disbelief that I read your Draft Alaska Regional Plan. I suppose I shouldn't be surprised after having seen the Forest Service in action in Southeast Alaska for over 30 years. However, it still comes as a traumatic experience to me to see a plan of resource management that is purely single-purpose rape of forest with no consideration for any other resource associated with the forested lands.

Clean-cut logging in Alaska has the net effect of destroying the forest for over 200 years. This seriously alters the hydrology of the land area decimating the fish populations; destroys the deer, bird and fur animal habitat; completely destroys the scenic and recreational attributes of the area. Proper selective logging can be done without this wholesale destruction as you well know. The permission of the Japanese must be great indeed.

In my association with the Forest Service I have learned to distrust the information completely. A perfect example of this comes to mind. The Fair and Game Dept. was asked for a list of streams that were of the highest importance to the fisheries of Southeast Alaska. The FS took the FS at face value and supplied the list. Whereupon the Forest Service singled out these watersheds for immediate logging and has about accomplished the procedure. And now you solicit sentiments on the attributes of your forest management and which you will entirely disregard as you have done in the past. Your hypocrisy is criminal. The testimony in the case of Reed Run vs KIC and ALP also proves this out.

In my opinion your Draft Alaska Regional Plan and your Draft Environmental Impact Statement for Alaska are colossal stunts to cover your rape of the forest and all the other associated values of it. I trust the record of what you are doing will be a silent pain of the history of this forest management for all time.

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Sincerely,
Bob Baskie

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impacts will occur if all available precautionary measures, including measures to insure "proper stream temperatures, dissolved oxygen levels, adequate cover, minimal sedimentation and free passage for fish" are taken. If fish habitat on the national forests is to be not only protected but enhanced, then this is the course which must be taken.

Wildlife/Timber Conflicts

All research to date seems to indicate that the retention of substantial areas of old-growth forest is vital to the continued survival of the Sitka black-tailed deer. Seemingly overlooked in this analysis is this species' function as an indicator species and the possibility that other less visible species are also being threatened by a policy of wholesale or accelerated liquidation of old-growth. The deer's role as an indicator species makes it counter-productive to too closely tailor the old-growth management plan to the specific needs of the deer, i.e. the degree to which the deer depend only on the snow-interception function of an old-growth forest. Associated plant and animal communities may depend on other aspects of old-growth and those aspects must not be overlooked. Old-growth retention should be developed and established at the regional level and should address wildlife-related concerns in addition to black-tailed deer habitat needs.

Paragraph 4 on p. 27, DRP points out that, in light of the 4.5 BBF per decade mandate, timber that cannot be cut from low elevation, high-volume stands that are the best winter wildlife habitat must be obtained from a much larger area of high-volume, higher elevation stands (important for summer range) with other inherent environmental impacts. Again this would indicate that 4.5 BBF per decade is too much timber to expect from a forest which is also required by law to manage for multiple use.

We disagree with the statement on p.11 that the resolution of the wildlife/timber issue is not within the scope of the Regional Plan. NFMA Sect. 219.9(c) states that the Regional Plan must issue guidelines "for resolving major public issues and management concerns... identified through public participation." The wildlife/timber conflict is one of the foremost public issues facing the region and has long been a point of sharp contention between the Forest Service, state and local agencies and the public. This issue was also outside the scope of the Tongass Land Management Plan and we can only wonder if the Forest Service intends to address it at all. It is appropriate and essential that the Regional Plan develop guidelines for the resolution of this issue that truly reflect concerns from outside the Forest Service, such as those of the Alaska Department of Fish and Game, that have been dutifully reprinted in the Plan but often ignored in management direction and implementation.

Timber

It is clear that much of the Region Plan is geared toward extracting the 4.5 billion board feet (BBF) of timber per decade mandated by the Alaska Lands Act. While this situation is unique to the

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Tongass it does not negate the legal requirement that this national forest too be managed to protect and enhance resources for all of the multiple uses. (It should be noted here that the Forest Service's interpretation of "maintain the timber supply" (ANILCA, Sec. 705(a)) as requiring them to put enough timber up for sale so that at least 450 MMBF/yr is cut, is not the only interpretation. Congress did not intend that the southeast Alaska timber industry should operate totally outside market forces, cutting 450 MMBF/yr when demand is so low that it must deflate the price of its products in order to sell them. The alternate interpretation views the requirement for "supply" to be similar to the water "supply" of a reservoir. The supply is there if needed; if not, it becomes part of the supply for the following year. The Tongass is required only to have 450 MMBF/yr available for harvest.) If it becomes apparent that this level of timber output cannot be sustained without significant damage to wildlife, fisheries, aesthetics, water quality or recreational opportunities, it is the responsibility of the Forest Service to report this to Congress (ANILCA Sect. 706(a)) for a possible downward revision of the statutory timber quota.

Despite ANILCA, the Forest Service is still required to provide for a forest structure that will enable perpetual timber harvest of the long term sustained yield capacity (Sect. 219.12(d)). As it stands now, the Forest Service is charting a course toward the liquidation of all old-growth forest and the eventual removal of more marginal stands. Even then shortfalls in inventory may make it impossible to maintain 4.5 BBF/decade without returning to previously harvested stands that haven't reached culmination of mean annual increments at projected rotations of 100-125 years.

The 4.5 BBF per decade mandate is not sacrosanct and was not meant to be the centerpiece around which all other resource demands must be made to fit, as is implied by the direct, declarative statements in paragraph 2 of p.12 and paragraph 3 on p.37. This plan will guide management of Alaska national forests for a decade to come, in which Congress may act to revise this harvest level. The forest plans should be directed to display alternative harvest levels in the forest plans just as in the other 9 regions.

ANILCA appropriated \$40+ million annually to "maintain the timber supply from the Tongass National Forest" (Sec. 705(a)), not for "advance roads and timber stand improvement" as stated on p.37, paragraph 3. While these activities may be components of a program for maintaining the timber supply, there are other important components, such as reforestation of backlogged areas, that should be displayed and discussed in the Regional Plan. While it will be some years before commercial harvests can be made on currently regenerating stands, it

seems that far too large a proportion of the \$40+ million is being spent on roads rather than on increasing yields from the present regulated forest area. (We do not agree with the Forest Service's extensive approach to forest management wherein 250-300 miles of new road must be constructed each year to access enough old-growth to fulfill the quota.) Notwithstanding Region 10's exemption from the economic guidelines of Sect. 6(k) of the NFMA, it is senseless to throw away the public's money building extremely expensive roads to access less and less valuable stands of timber. According to the graph on ORP, p.F-27 less than 15% of the commercial forest land supports 30 MBF or more timber per acre. Graphs on ORP pages F-28 and F-29 project lands of steadily lower volumes per acre being cut from a sharply increasing area over the next few decades. Even considering the 100 years needed for sawtimber rotations, such a policy of extensive forestry based on roadbuilding rather than intensive forestry based on silviculture would be so shortsighted as to be a mockery of sustained yield resource planning and a travesty of the Forest Service's fiscal responsibility to the public. A much greater budget and manpower emphasis must be placed on intensified management of the highly productive and economically accessible areas that have already been logged, rather than on the accelerated sprawl of roads in search of minable timber. Maintaining the timber supply and the methods employed to do so are major concerns in the region and nationally. All components of this program should be described in the Regional Plan summary of the Analysis of the Management Situation and Resource Goals sections and should have specific output targets for each component outlined in the program outputs chart.

We are opposed to the Forest Service's extensive construction of access roads far in advance of timber sales. As past experience in Region 10 has shown, this is more often an attempt to quickly road areas not now in reserved status in order to preclude the areas' being considered in the future for roadless management than it is an effort at sound and efficient forest management. In a number of cases, lengthy "access roads" have been constructed and followed by one or two token timber sales, only to be abandoned for years while road construction continued busily elsewhere. The NFMA (Sec. 8(b)) and Forest Service regulations (36 CFR 219.13 (b)(12)) require that such access roads be revegetated within ten years of the termination of a contract, permit or lease unless it is to be used as a permanent road and is part of the plan for the National Forest Transportation System. If the roads are to be used as permanent roads, they should appear in the program outputs (p.89 - the total mileage of permanent road given in the draft plan for the entire region for 1982 was 10 miles). It is doubtful that the construction of 250-300 miles of non-permanent access roads annually will be either necessary or consistent with the law.

One effect of such an ambitious road construction program that is much less apparent to the public is the degree to which it will allow the Forest Service to exploit its exemption from the economic constraints of NEPA (Sec. 6(k)). Enough road could be constructed in the next 10 years to service timber sales for the next 100. In the event that the public some years hence becomes sufficiently incensed over timber industry subsidization in Alaska to amend the 6(k) exemption, roads will be already in place and timber sales that would

have been impossible deficits if road costs had been attributed to them will be within the law and priced attractively for timber bidders. The proposed level of access road construction is an irresponsible and surreptitious use of public funds and, if the objective is indeed to simply contribute to maintaining the timber supply, should be cut at least be half.

Standards and Guidelines

We are strongly opposed to the continued use of 20 cubic feet per acre per year wood production to classify lands as suitable for timber production. This definition has no economic basis whatsoever and, despite Region 10's present exemption from NFMA economic guidelines, a concern for the responsible management of public resources should continue to make this a consideration. Region 10 is still subject to NFMA's other guidelines for determining timber suitability such as the land's capability to recover to full stocking within 5 years and its capability of undergoing "logging and other forest management practices, using available technology, without irreversible damage." Many of the lands capable of producing only between 20 and 50 cu.ft./ac/yr which should be screened out on that basis will probably remain a part of the timber base simply to make it possible to obtain 4.5 BBF per decade. Keeping these marginally productive timberlands as part of the timber base inflates the allowable annual harvest calculation and sustains the illusion, originated by the Forest Service's current inventory of these areas, that the Tongass National Forest can sustain the harvest level assigned in ANILCA. A realistic appraisal of resource capabilities is needed before the forests' long-term productivity is diminished in pursuit of an ill-wrought and untenable goal.

We would like to see a minimum biological growth potential of 50 cu.ft./ac/yr. Unfortunately, neither this nor any other alternative to the Forest Service preferred alternative appears in the draft EIS. Despite the NFMA Regulations' requirement to provide a "reasonable range of alternatives" there are many of the standards and guidelines for which only one or two alternatives are displayed. This should be changed to make the Regional Plan consistent with the NFMA Regs. Failure to examine reasonable alternatives, such as the 50 cubic foot standard, also constitutes a violation of NEPA. (NRDC v. Morton, 458 F. 2d 827 (DC Cir. 1972).)

The term "utility log" is never defined in either the draft Region Plan or draft EIS, but it can apparently be used for sawtimber and/or pulp (OEIS, p.60). Likewise, no indication is given as to the volume that utility logs have represented in the past or are anticipated to represent in the future, important information for choosing between alternatives B and C. The reasoning behind not including utility logs in the allowable annual harvest is as puzzling as it is faulty; the Tongass National Forest is required to supply 4.5 BBF of timber per decade and the law does not differentiate by types of logs and what they will be used for. The Forest Service may not have a running inventory of utility logs, but it certainly knows the volume represented by these logs when a cruise is made in preparation for a timber sale and can plan this into the allowable annual harvest figure for the year in which the

timber is to be sold. The Forest Service seems to feel in paragraph 4 that it must scour the forest to come up with 450 MMBF of high quality timber and whatever is logged additionally as utility volume is gravy for the timber industries. The 1980 Region 10 "cut and sold report" shows that well over 51 million board feet of "utility" volume was cut in addition to the allowable annual harvest. By anyone's standards, that is a lot of gravy. This issue needs much better explanation in the Regional Plan. Utility logs should, without equivocation, be included in the 4.5 BBF/OEC timber supply required from the Tongass.

This summarizes our concerns regarding the Draft Region 10 Plan. The Wilderness Society appreciates the opportunity to review and comment on this important document and we would like to be on the mailing list for the Final Region Plan. These comments have been drafted by the staff of the Society's Forest Management Program: Peter Kirby, Coordinator, and Al Sample, Forester. They have been coordinated with The Wilderness Society's Alaska Regional Representative, Tom Robinson. Should you have any questions regarding our comments and suggestions, please do not hesitate to call.

Sincerely,

Charles M. Clusen
Charles M. Clusen

Director,
Conservation Department

CMC/mjm



LYNN CANAL
CONSERVATION
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Homer, Alaska

RUNEAU GROUP-
SIERRA CLUB
Juneau, Alaska

SITKA GROUP
SIERRA CLUB
Sitka, Alaska

PETERSBURG
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November 4, 1981

RECEIVED
NOV 9 1981

FOREST SERVICE O.I.

John Sandor
Regional Forester
U.S. Forest Service
P. O. Box 1628
Juneau, Alaska 99802

Attention: Regional Plan

Dear Mr. Sandor:

The Draft Alaska Regional Plan, accompanying Draft Environmental Impact Statement, and the implications these two documents hold for the rest of the forest are very distressing to the Southeast Alaska Conservation Council and its over 700 members. We live here because of the wildness afforded in the Archipelago, because of the abundant fish and wild-life resources we depend on, and the solitude available in many of Southeast's remote bays and coves. The Alaska Regional Plan is a direct threat to why we live here.

The plan ignores major public issues, guts previous planning documents developed through hundreds of hours of public involvement, and sets the stage for a wholesale onslaught of our forest resources under the disguise of multiple use.

We have identified six major conflicts that run throughout the plan. Resolving these differences of opinion and interpretation of the law would go far in bringing the plan up to standards that truly manage for multiple use.

1) The deer/logging conflict: "is not within the scope of this document." Once again the Forest Service has avoided dealing with this issue. If it is not to be resolved in the Regional Plan; then where? NFMA (219.19(c)) calls upon the Forest Service to use the

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Regional Planning process to "issue needed guidelines for resolving the major public issues . . . which are identified through public participation."

On Page 10 the Regional Plan clearly indicates the deer/logging conflict is a publicly identified major public issue. Yet the Forest Service refuses to set criteria for solving this problem other than to say they are continuing the work with Fish and Game. To talk with Fish and Game, one gets another story. Both sides are talking, but the Forest Service is not listening. They are "bound to harvest 450" and if that means all the deer habitat, so be it.

2) Many of the prescriptive standards and guidelines set forth in the Southeast Alaska Area Guide have been eliminated in the Regional Plan. The reason is a deference to "forest planning." - This means the local forest, with the approval of the supervisor or chief, can decide what specific guidelines it will use to protect streams, soils, water quality, and wildlife habitat (among others). The Forest Service claims it is not up to the Region to dictate specifics to the forest, but that specific guidelines must be developed for specific areas. But since the Area Guide was developed for the Tongass, the guidelines, in essence, have already been developed. Timber harvesting standards and guidelines in the Area Guide are, for all practical purposes, standards and guidelines for the Tongass. All prescriptive policies in the Guide should be carried through to direct future Tongass planning; why throw them out and fight this battle all over again? What guarantee is there that a TLMP revision will include those guidelines thrown out?

The Forest Service has modified standards and guidelines for all elements, except timber, into broad sweeping generalizations that give little substantive direction to further planning. Yet, in the timber element, page after page of specific guideline is set down. This is because NFMA requires it. But NFMA also requires the same level of direction for other elements.

Section 219.10 of NFMA details Regional Planning Actions. Among the charges listed for a Regional Plan are to "enhance water quality and quantity, soil productivity, and restore watershed conditions" (219.10(b)(6)), "maintain or improve fish and wildlife habitat" (219.10(b)(9)), and "issue needed guidelines for resolving major public issues . . . identified through public participation" (219.10(c)).

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Advanced roading has nothing to do with intensively managing the resource. Other guidelines listed which are intensive management include pre-commercial thinning and advanced logging system layout -- both of which have an effect on the health and productivity of a managed forest. Advanced roading, however, is not a forest management tool. It should be completely eliminated from the Regional Plan. (DRP, p. 131)

5) The Regional Plan states that utility logs (logs for pulp) (DRP, p. 134) and timber harvested from lands not capable of growing 20 cubic feet annually (DRP, p. 131) will not be included in each forest's allowable cut. Logs from the forest to dependent industry, regardless of where they grow or what they are used for, must be included in the allowable cut. Nowhere, as far as I can tell, is it stated that the 450 is saw timber only.

6) The Regional Plan is completely deficient in economic analysis or guidelines for the proposed program. Though the Tongass is exempt from Section 6(k) of the National Forest Management Act, it does not exempt the Forest Service from its obligation to explain where the money is being invested and what the expected returns are. This analysis is needed for people to fully understand how the timber program, especially roading, is being paid for.

SEACC is especially concerned about the amount of money paid for road construction, how much of the money invested in roads is not covered by timber receipts, and how much of the proposed 250-300 miles of road (page 37, Draft Regional Plan) is advanced roading. Our concern is the doubling in the past several years in the number of road miles constructed and the associated cost. What is this costing the taxpayer?

The \$40 million-plus Congressionally mandated appropriation is to be used for maintaining the timber supply. If all this appropriation is spent on road building, what will happen to other intensive management programs such as thinning and advanced logging? What will happen if the \$40 million is not realized?

Page 37 of the Draft Plan identifies 250-300 miles of road. Page 61 of the DEIS identifies road costs at between \$127,000 and \$180,000 per mile. The range of

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Protection of fish and wildlife habitat from logging and other development activities is a major public issue, as identified on Page 10 of the Draft Regional Plan. The Southeast Alaska Area Guide met the concerns of the public in developing a set of guidelines for, among other things, habitat protection. The Forest Service has shown a great lack of credibility by deleting Area Guide standards.

If the Forest Service is so sure they will be included in the guidelines established during the TLMP revision, why not include them now, for insurance sake? There is no legal guarantee that deleted Guide policies will be included in TLMP. The good faith of current Forest Service planners could easily be replaced during the Reagan years. The Area Guide has already met the issues. It must be incorporated in its entirety into the Regional Plan.

3) Throughout the Plan, the 450 million board foot per year harvest level on the Tongass is discussed as an absolute. The Forest Service made a conscious decision not to evaluate lower harvest levels because Congress mandated 450. Yet, the Forest Service has stated (Draft Plan, Page 37) they plan to some day cut 700 mmhf a year off the forest. What if the 450 cannot be sustained? Congress required the Forest Service to report to them if that level was too high. The Forest Service is prejudicing itself by claiming they will cut 700. How can this same agency make an objective decision about the true viability of the 450?

Several factors point to conflicts in the forest which could influence maintaining the 450/year cut -- the need for old growth deer habitat and recent reinventories identifying less timber than previously identified.

The Regional Plan must identify these discrepancies and outline the process by which their impact on the 450 cut will be evaluated. If the public identifies this as a major issue, the Forest Service must respond.

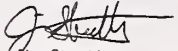
4) The Forest Service has included advanced roading as a tool for intensive forest management. Advanced roading is used only to make deficit sales attractive. The Forest Service proposed to build roads into marginal timber areas before any sales are planned, so that when sales are planned for these areas the roading costs are not included in the cost of the operation.

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expenditures for Forest Service investment into roading is 31.75 million to 54 million. How will this be paid for? How much of this mileage will be added to the National Forest transportation system and how much will it cost to rehabilitate the remainder? (NFMA 219.13(12)) The answers to these questions and a complete analysis of the economics involved in implementing the Regional Plan must be included in the final Plan.

Our specific comments are attached.

Sincerely,


Jim Stratton
Executive Director

JS/ss

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SPECIFIC COMMENTS

Draft Alaska Regional Plan

1. Introduction

page 3, paragraph 6 (stage 2:b)

Regional level planning for timber is, for all intents and purposes, synonymous with timber planning for the Tongass. Guidelines developed in the Regional Plan, while regional in appearance, are aimed at the Tongass.

This paragraph mentions a relevancy test for inclusion of planning direction in the Regional Plan. That test is whether the forest needs the issue resolved. The Area Guide has already resolved, through thousands of hours of public input, many resource conflict issues. Why, then, is the Forest Service discarding so many of the guidelines that were developed in the Area Guide? This action will only reopen the issue to debate again.

Area Guide guidelines were decided by members of the Southeast community -- loggers, fishermen, sportsmen, conservationists. Discarding specific standards and guidelines and referring the issue to forest planning can only be seen as a way to gut the protective measures we fought for in the mid 70's. The entire document needs to be revised to include the Area Guide standards and guidelines that were discarded in this draft. The issue was resolved once; there is no need to throw out guidelines only to later try and come up with new solutions to old conflicts.

page 4, paragraph 4

We sincerely hope the last two sentences of this paragraph refer to local people. The rhetoric claims that forest planning will be aimed at meeting people's needs. But which people? People of corporate thought; perceived national interest needs in the name of the people; people in the timber industry; or people who hunt, fish, and live in Southeast Alaska?

page 7, paragraph 4 (E. Alaska . . .)

These two items of "paramount importance" seem to have been ignored by the Forest Service. (1) Of the issues raised by the public, the deer/logging conflict is one of the biggest, yet the Forest Service ignores it. They have yet to recognize this as an issue that affects forest management and deal with it in a professional manner. (2) If the Area Guide was of such paramount importance, then why was it so severely gutted in the process?

page 9, 2nd paragraph below box

The key here is "minor clarification." The Area Guide was more than modified in a "minor" way. Most, if not all, of the specific management prescriptions aimed at solving "major public issues" have been referred to forest planning. The drastic change in the direction of the standards and guidelines constitutes a major federal action. The lack of guaranteed specific prescriptive policies will severely affect management of federal land. As such, all of the changes to the Area Guide standards and guidelines should be reviewed in the EIS process.

page 10, paragraph 2, line 4

The Forest Service states that development impacts on fisheries can be minimized through implementation of existing policies, standards and guidelines. It is these very existing standards and guidelines, embodied in the Area Guide, that have been eliminated in this document. What will happen to fisheries protection when the "existing policies" are not of the current specific nature? The Forest Service admits in this paragraph that existing standards and guidelines are necessary for fisheries protection. This disparity needs to be addressed in the final plan.

page 10, paragraph 3

This is a direct contradiction to the previous paragraph. Regional Plan policies provide protection for fish habitat without the prescriptive guidelines of the Area Guide, yet the previous paragraph states existing standards and guidelines (Area Guide) are what is needed to protect fish.

Forest Service analysis led them to the conclusion that no major changes were needed in the Regional level management direction. This is wrong. The changes from the Guide to the Regional Plan are very major. The Area Guide had embodied the direction of NFMA with regard to fisheries protection. The Regional Plan strips that away.

page 11, paragraph 1

What documentation is there to substantiate the claim that the influence of timber harvest on predator/prey relationships has not been detrimental? With fewer old growth acres available during heavy snowfall, prey population becomes denser. This makes it easier for predators to make a kill.

page 11, paragraph 2

No resolution of the deer/logging issue within the scope of the Regional Plan is one of the biggest shortcomings of this document. NFMA (219.10(c)) requires the Regional Plan to address "major public issues." In addition, this plan (on page 3) indicates a test of relevancy for regional involvement in issue resolution. Because this issue is of major public concern identified through public participation, this issue seems very relevant to receive regional guidance towards a solution.

Being committed to "working" with Alaska Department of Fish and Game does not solve the problem. The Forest Service has traditionally ignored Fish and Game recommendations in this area. The Forest Service identifies the state position, even includes key state position papers in the appendix, yet while "working with Fish and Game", the Forest Service continues to ignore the issue.

If the issue is not to be solved in this planning document, then when and where will it be resolved? Putting off the problem and any possible solutions only allows more old growth to be harvested to the detriment of the deer. Is multiple use really spelled T-I-M-B-E-R?

page 12, paragraph 1

The public is more concerned about the ability to sustain a certain level of timber production than the three reasons listed here. Recent timber reinventories in the Hobart/Houghton region found that only "61% of the TLMP computed volume can be identified." (Letter from Ben Mitchell to Forest Supervisor, March 12, 1981.) A timber reinventory on the

east side of West Chichagof found "approximately 2/3 of the acreage that was computed statistically from the TLMP photo analysis . . . has been identified." (Letter from Ben Mitchell to Norm Howes, April 21, 1981.)

These volume discrepancies were found in some of the first areas reinventoried. The issue of TLMP volume not existing in the woods must be identified by the Forest Service.

The deer/logging issue also affects the timber supply. When the Forest Service finally wakes up to the magnitude of this problem, they are going to have to retain tracts of old growth for deer habitat. This will affect the timber supply.

page 13, Transportation Issue

Why does the Forest Service equate transportation needs with roads? A method must be identified that will determine if there is an alternative to road building. The "building roads for roads sake" attitude has got to be shelved for alternative transportation options to be seriously considered.

page 13, Management Concern: Update of Guide

Reviewers (the public) feel the Forest Service develops good plans and policies, but "these appear to get lost in the implementation process." This has been happening with specific prescriptive policies that are very easy to implement. What will happen when the region is trying to implement the ambiguous policies suggested in this draft plan?

page 14, paragraph 1, first sentence

How can weakening specific standards and guidelines be considered laying the foundation for broad ambiguous statements? If thought broad ambiguous statements provided the groundwork for the specific standards and guidelines. By using the Area Guide as the "foundation" for the Regional Plan, the Forest Service seems to be building from the top down. Instead, they should consider the Area Guide standards and guidelines as the foundation and let "forest planning" get even more specific.

page 14, summary #2

There are several contradictions in this statement. On pages 9 and 10 the Forest Service speaks of minor changes to the Area Guide, yet here they identify revising the Area Guide as a major policy change. "Major revision" status applies to more than the ten issues identified earlier on page 14.

In addition, deleting the specific prescriptive policies of the Guide is not required to meet NFMA requirements. On the contrary, regional planning needs include: enhancing water quality and quantity, soil productivity, and restoration of watershed conditions (219.10(b)(6)); maintain or improve fish and wildlife habitats (219.10(b)(9)); and issuing needed guidelines for resolving the major public issues . . . identified through public participation (219.10(c)).

The specific management prescriptions of the Area Guide are aimed at solving major public issues identified through public participation. The major issues, identified even in this plan, are protection of fish and wildlife habitat. This translates into forest health and water quality. The reason the Area Guide is specific is a result of a major public participation effort in 1977 that addressed the issues people felt most important. To ignore these decisions on major issues, fish and wildlife habitat, is a gross neglect of the public trust.

page 14, summary #3 and last paragraph

Not addressing this issue is a cop-out. A positive course is not outlined. Until the Forest Service concedes this is a real problem, there will be no resolution. If not in the EIS process, then where?

II. Analysis of the Management Situation Human and Community Development

page 18, paragraph 4, last line

To say the timber industry shows potential for economic growth is stretching it. Mills are closed in Wrangell and Ketchikan, and there are questions about the timber supply holding out. This doesn't look good to me.

page 19, assumption #3

Alaskans will also be demanding more non-commodity goods from the forest. Tourism is based on non-commodity goods and the Forest Service identifies it as having the greatest potential for economic growth.

Soil, Air and Water

page 21, Monitoring

Amen to the first sentence. I hope the Forest Service is sincere in doing this.

page 22, assumption #2

What level of protection is closely following "appropriate management practices" going to afford? I'm not sure we can assume that existing legislation, regulations and manual direction will protect sensitive watersheds, especially when many of the existing regulations and manual directives, as embodied in the Area Guide, are thrown out. This assumption doesn't hold.

page 22, assumption #3

In addition to improving methods for prediction of soil mass movement and erosion, an inventory of soil types, including the size and frequency of mass movements on each, needs to be

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page 28, 2 additional assumptions

8) Logging practices, no matter how cautious, will continue to degrade salmon habitat.

9) Bad logging practices, whether contractor or guideline caused, continue to take money directly from the commercial fishermen's pockets and affect the level of sport and subsistence fishing.

Wildlife

page 26, paragraph #3

Who is to decide what suitable habitat will remain to sustain how large a viable wildlife population? Whose legal mandates will the Forest Service be following? The next page (27) indicates the state has primary responsibility for management of wildlife populations. This opening paragraph should be rewritten to reflect the state's lead role.

page 27, paragraph #2

Recent research has shown that old growth forests are important winter deer habitat, not only in Southeast Alaska but also on Vancouver Island, the Olympic Peninsula in Washington, and western Montana. Uneven-aged old growth, with its large protective canopies, allows in enough light for browse vegetation to grow, but keeps the snow out. Snow depths in an old growth forest are often 1/2 to 1/3 as deep as openings in the forest. During winter months, with snow covering the open areas, deer depend on the old growth for both food and shelter.

It is true that during snow-free months deer often use clearcut areas for food. However, this only lasts for 10 or 15 years. Once an area is dominated by a new, even-aged stand of trees, light to the forest floor, and subsequently deer food, are essentially eliminated. Thus, even in areas where snowfall is minimal it is the old growth forest that provides food. Old growth is more productive for deer than even-aged forests during any time of the year, and is more protective than clearcuts during those months with snow on the ground.

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done in both developed and undeveloped areas. The Waldport District, Siuslaw National Forest, Oregon, has completed this type of inventory and it has become invaluable in deciding future management directions.

page 22, assumption #4

High quality water is also needed for fish habitat. The need for high quality water in all parts of the forest requires data not just for municipal watersheds, but all watersheds in which development is or will be occurring.

page 22, assumption #5

Future development in marginal and/or sensitive areas must not occur under the assumption that "soil and water quality monitoring and research will suggest new methods for erosion and sediment control." Once new methods are in place, then development can proceed.

Fish

There is no discussion of the value of and need for subsistence fisheries. This needs to be added.

page 23, last paragraph

What authority does the Forest Service cite to support the statement in the first sentence? Salmon stocks can be increased by regulatory and management policies, but these policies are usually used to divide up a smaller and smaller pie. The limiting factor to the size of salmon stocks is available habitat. Forest development, especially logging, does decrease available habitat.

page 24, paragraph 4

"Maintenance of productive habitat for sport (or commercial) fish can be achieved through implementation of existing standards." These existing standards are in the Southeast Alaska Area Guide and most of them have been deleted.

page 25, assumption #5

Natural habitat quality and quantity will also diminish because of temporary developments that leave permanent land use scars. In one day, bad logging practices can leave permanent damage to a once productive salmon stream.

page 25, assumption #6

This statement is not true. Even if all precautionary measures are implemented, logging will still cause adverse effects on fisheries. Though small declines in salmonid survival in a single stream does not seem significant, that decline multiplied by 100 streams is a significant reduction in population. Development always effects salmon populations.

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deer populations to do well considering the last five to ten years have been comparatively mild in terms of winter snowfall. However, following a heavy winter or closure of the conifer canopy the populations can be expected to decline sharply. Basically, the deer-old growth relationships described for Alaska, B.C. and elsewhere suggest that old growth is more productive deer habitat than even-aged second growth during any time of the year and that old growth is more productive habitat than clearcuts when snow accumulates.

page 29, paragraph #2

It is very misleading to say wildlife habitat may be improved through thinning or other management prescriptions in Southeast. There have been no studies, nor are any planned (as far as we know) to assess the value of thinning, alternative harvest techniques, or other vegetation manipulation practices. Currently, the only kind of management that will definitely protect old growth wildlife habitat is to leave it alone.

page 29, paragraph #3

The TLMP retention level used "to retain a portion of old growth forest habitat to meet wildlife and other resource needs" was not picked by any biological standards. It was determined by the need to cut timber. The interdisciplinary team recommended a 40% LUD III retention and an 18% LUD IV retention. This was arbitrarily changed by the Regional Forester to 30% and 13%.

This paragraph implies that current retention levels are sufficient for wildlife. This is totally misleading. Because of the political nature surrounding the setting of retention levels, needs of wildlife were not considered. It would probably be safe to say that retention levels will sustain a reduced population level.

The Forest Service is misleading the public with discussions of possible solutions to the deer problem through different harvest techniques and methods and/or claiming they'll adapt to their changed environment. Fish and Game and the Forest Service research shows why the old growth is important. New harvest and management techniques don't provide food and shelter during harsh winter months. The Forest Service needs to quit kidding itself that a solution other than leaving old growth exists. Old growth harvest should be severely curtailed.

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It seems to me the Forest Service keeps the "possible solution" carrot dangling in front of folks to justify their continued onslaught on old growth. It seems to be a ploy to cut as much as possible before admitting it's a problem and giving in.

page 32, assumption #2

Temporary developments also have permanent impacts. A temporary logging show can permanently change an old growth forest into a 100-year rotation tree farm.

page 32, add assumption #8

8) As long as the current timber harvest level continues, there will be a substantial decrease in the populations of deer and other old growth dependent species. This will increase pressure on the remaining areas with viable wildlife populations.

Estuaries and Tidal Meadows

page 34, paragraph #1

Sitka black tail deer are only driven to beach lines during heavy snowfall when there is not sufficient old growth forest nearby.

page 34, paragraph #3

Elimination of rafting logs and transition to on-land storage and barging will eliminate this problem.

Timber

page 37, paragraph #4

Recent reinventories strongly suggest that harvest levels set from TLMP timber inventories are over-estimated. A portrayal of these reinventories and their possible extrapolation to the remainder of the forest would be very helpful. There are those in the Forest Service and other federal agencies, the State and the public, who feel that 450 is not sustainable over the long range, yet 700 is discussed here as the ultimate goal.

page 39, paragraph #4

Why must Alaska depend on the Pacific Northwest for local lumber needs? What is the background for this ludicrous set up?

page 40, paragraph #5

In TLMP it is assumed that 36 mmbf of native logs would find their way to the pulp mills. This is approximately 12% of the pulp volume needed for "dependent industry." Is this TLMP assumption holding true?

page 41, paragraph #1

The allowable timber harvest is also dependent on the accuracy of the timber volume inventory upon which all calculations are made.

page 41, assumptions #5 and #7

These will only hold if the Office of Management and Budget gives the Forest Service the "\$40 million or whatever is necessary."

add:

8) The Tongass will continue to run in a deficit to meet the 50-year contractual demands and the mandated level of timber harvest.

9) Due to more accurate methods currently employed, differences will continue between the initial TLMP inventory volumes and what is currently being found on the ground.

Minerals and Geology

page 45, assumption #1

Rewrite to read: Mineral exploration and development will increase, adding to the economic base of Alaska and decreasing the quality of the environment.

Recreation

page 46, paragraph #3

From all indications, the 12% or 2,746,000 acres (on the Tongass) currently being managed to limit road building and development (LUD II areas) is going by the wayside. The Forest Service has indicated these areas will be reclassified for timber during the revision of TLMP.

page 48, paragraph #2, line #2

Change "may increase" to "will increase." The Forest Service has assured us that all non-conservation unit areas will be entered and logging will have commenced in 35 years.

Wilderness

page 55, last paragraph

See comment on future status of LUD II areas in above comment.

page 56, assumption #8

Wildlife habitat in wilderness will also become more important as the rest of the forest changes.

Research Programs

page 78, paragraph #1

This is more Forest Service propaganda. Forest Service Research participated in the Sitka black tail deer studies and jointly came to the conclusion, with ADF&G, that logging old growth was detrimental to deer habitat. The Forest Service ignored and discredited this research.

RPA Targets

pages 88-89

No mention is made in these tables of the output goals for wildlife. The only output levels identified are for habitat improvement. We assume this means improving habitat in already developed areas. What about goals for retention of existing habitat? 219.10(b)(9) of NFMA directs the Regional Plan to maintain or improve fish and wildlife. This calls for more than rehabilitating developed areas. This is another attempt to side step the issue of old growth wildlife needs.

Resource Goals

page 92 - Fish and Wildlife Goals

To date, flowery language full of "maintain and improve coordination and communication", "strengthen", "encourage", "provide opportunities", etc. has not produced the protection for fish and wildlife habitats that is needed to meet true multiple use.

ADF&G must be able to set the levels of fish and wildlife populations and habitat needs. When the Forest Service finally starts listening to Fish and Game and heeding their advice, then this flowery language will mean something.

page 93 - Timber Goals

add: 8) Monitor the ability of the Tongass Forest to sustain a 4.5 billion cut and still provide for other resources. (ANILCA 706)

page 94 - Recreation Goals

4) Timber is heavily subsidized. Why not recreation?

Tongass Forest Plan Implementation

page 97

This section describes how forest planning will occur once the Regional Plan is in place. It makes for confusing reading.

page 99, paragraph 2

When does this management area analysis process occur? Will it take place during TLMP or as a management area is opened up for development? Since there are no more management area plans, how will the public be able to participate in the revision of standards and guidelines?

STANDARDS AND GUIDELINES

These have been divided into two categories: those elements whose changes from the Area Guide are not considered "significant" and therefore don't need an EIS, and those elements whose changes are considered "significant" and are covered in the EIS.

DEIS-Covered Standards and Guidelines

Timber

These standards are repeated and compared to alternatives in the DEIS, p. 12. These are comments directed at the Forest Service preferred guidelines.

page 127, paragraph 1

Uneven-aged management is also appropriate in places where research has shown it is needed to perpetuate wildlife populations.

page 129, 3. Dispersal and Size Variation

Openings in the forest will be blended and shaped to achieve those wildlife habitat objectives?

page 130 Harvest Unit Selection

a) Dispersion of openings should consider topography as it influences wildlife movement corridors.

page 131, 5. Biological Growth Potential

The volume of trees harvested from land that is not capable of growing 20 cubic ft./acre must be included in the allowable sale. Trees, no matter what they are used for or where they are harvested from, must be included in the allowable cut.

page 131, 6. Management Intensity

paragraph 3

This should be reworded to include the possibility of a revision of this level based on Sections 705 and 706 of the Lands Act.

paragraph 4

Including advanced roading as intensive management is one of the most misleading statements in this entire document. Advanced roading is not an intensive management tool as are pre-commercial thinning and advanced logging system layout and development. The latter two are aimed at producing a healthier stand of trees. Advanced roading is only a method to make deficit sales in marginal areas look economically attractive to potential buyers. On a normal sale, the road costs are included in the pricing system. Pre-roading a

these four are almost verbatim from the regulations themselves. Why they should be omitted because they are being replaced by NFMA regulations is beyond me.

NFMA references:

- a) 219.19(b)(1) and 219.13(c)(5)
- b) 219.13(h)(3)
- c) 219.13(e) and 219.13(b)(4)
- d) 219.13(c)(3)

Standards and Guidelines for Elements Not Reviewed in the DEIS

Comparison of Regional Plan to Area Guide

Human and Community Development

page 112, 2b

Regional Plan:

b. Identify and consider community preferences in Forest Service management decisions where communities and residents may be significantly affected;

Area Guide:

b. Community preferences will represent an integral factor in Forest Service decisions where communities and residents may be significantly affected.

Reason For Change: Clarification

This change significantly alters the direction to the Forest Service regarding integration of local preferences. 219.14(b)(3) of NFMA states that the forest planning process will include an evaluation of regional goals and objectives to see that they are compatible with community stability. This evaluation is meaningless unless local preferences are integrated into the

marginal area and paying for it out of sale receipts from an adjacent highly profitable sale removes road costs from consideration in the pricing system when the marginal area is eventually put up for sale. Pre-roading is more subsidy to the timber industry.

Pre-roading can also be used to guarantee the eventual harvest of a controversial area. Once the road is in, it's harder to stop a sale.

page 133, paragraph 1

Any tree harvested should be included in the allowable cut and counted towards the yearly harvest level.

page 134, last paragraph

Utility, cull, or endemic mortality logs usually end up as pulp. A level of harvest from the Tongass forest necessary to keep dependent pulp industries going was identified in TLMP. All logs, regardless of where they come from, that go to dependent industry must be counted in the 450 cut. By not counting them, more and more of the 450 will be assigned to saw logs, as dependent pulp industry will be getting their supply from logs not counted in the cut.

Regional Plan:

Omitted

Area Guide:

2. Timber will be taken from National Forest System lands only where:

- a. soil, slope or other watershed conditions will not be irreversibly damaged.
- b. there is assurance that such lands can be adequately restocked within five years after cutting.
- c. protection is provided for streams, streambanks, shorelines, lakes, wetlands and other bodies of water from detrimental changes in water temperatures, blockages of water courses and deposits of sediment where logging is likely to seriously and adversely affect water conditions and fish habitat.
- d. the logging methods used are not selected primarily because they will give the greatest dollar return or the greatest unit output of timber.

Reason For Change: Area Guide policy replaced by NFMA regulations.

This section really troubled me. Not only have all the other policies in the Regional Plan spawned directly from NFMA,

planning process. Under the new guidelines the federal government can "consider" community preferences, but does not have to include them at all. This flies in the face of Reagan's pledge to turn government back to the people. This new guideline allows the Forest Service the discretion to exclude local input, even if necessary to insure community stability, if the local concern threatens to get in the way of the timber harvest.

page 112, 2c

Regional Plan:

c. Develop alternatives during the planning process that reflect community needs and preferences as expressed through the public involvement process prior to starting the environmental impact statement procedure.

Area Guide:

c. Alternatives developed during the planning process must reflect community needs and preferences as expressed through the public involvement process prior to starting the environmental impact statement procedure.

Reason For Change: Clarification

The Area Guide requires the alternatives developed to reflect community needs and preferences while the new Regional Plan says to develop an alternative(s) that reflects community needs and preferences. The Regional Plan guideline allows the Forest Service to develop alternatives that could potentially be in opposition to and very damaging for local communities. The Area Guide prevents this by requiring all the alternatives developed to reflect local needs and concerns. Again, the Forest Service is trying to circumvent NFMA for the benefit of getting the cut out over local needs, concerns, preferences, and stability.

page 112, 8

Regional Plan:

The State of Alaska has the lead role in determining viable subsistence, sport and commercial use levels for fish and game populations.

Area Guide:

No Guide policy.

This policy, as such, allows the state to determine population levels. Wildlife Resource Goal #2 on page 92 must be changed to reflect the state's lead role. The Forest Service must begin to defer population levels to the state and incorporate their recommendations for habitat requirements.

Additional Policy Recommendations:

12. An effort will be made to encourage private and state timber to be processed in the local market, thus relieving pressure to maintain dependent industry wholly from a National Forest timber base.

13. When a Forest action effects a local community and the effects could be mitigated by cooperatively working with the state or private interests on an alternative facility, the cooperative route will be taken.

Soil

page 114, 1
Regional Plan:

1. Continue a soil monitoring program on the Forests to measure soil behavior and response under various conditions. This program will provide a scientific means to evaluate losses of nutrients and/or soil material as a result of land management activities.

Area Guide:

1. A soil monitoring program will be continued on the Forest to measure soil behavior and response under various conditions. This program will provide a scientific means to evaluate losses of nutrients and/or soil material as a result of land management activities. Management standards and techniques will be revised, if necessary, as a result of this program to meet the applicable goals and policies of the Federal Water Pollution Control Act and those listed in the soil, water, minerals, fisheries and timber sections of this Guide. Management decisions directed at or affecting the soil resource will be based on the best available knowledge to provide a sound basis for professional judgement.

Reason For Change: Clarification

page 114, 2
Regional Plan:

2. Conduct a soil resource inventory and prepare a report for all projects significantly affecting soil resources.

Area Guide:

2. A soil resource inventory and report will be made for all projects significantly affecting soil resources. The inventory and reports will identify and describe the soils, determine their capabilities and limitations and provide information necessary for preparing prescriptions to manage and protect the soil and other resources consistent with the goals and policies established in this Guide.

Reason For Change: Clarification

The omitted portions of these two policies relate to specifics in the monitoring and inventory process and guidelines for mitigation of identified problem areas. If the Forest Service plans to include these specifics in their upcoming reports and programs, then they should not feel constrained by including these specifics now. In any case, we need these specifics to insure that the Forest Service addresses all the aspects of these soils issues. This "clarification" has significantly gutted the Area Guide policies. The Area Guide policies should stand as written.

page 114, 3
Regional Plan:

3. Incorporate provisions for re-vegetating and stabilizing temporary roads, landings, borrow pits, skid trails and other human-caused soil disturbances into project plans.

Area Guide:

5. Provisions for revegetating and stabilizing temporary roads, landings, borrow pits, skid trails and other human-caused soil disturbances will be planned through the IDT process and incorporated into project plans. - a - Temporary roads, landings and skid trails will be rehabilitated following cessation of use.

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Reason For Change: Clarification

quarries will not be located in areas prone to landslides. While an IDT would have the option to develop a rock quarry out of a landslide area, they would also have the option to develop such an area even with other sources available. If the Forest Service feels the IDT would never do such a thing, then they should have no problem leaving that section of the Guide intact.

page 114, 7
Regional Plan:

7. Conduct development activities on organic soils and mineral soils classified as wetlands in compliance with existing executive orders.

Area Guide:

No Guide policy.

Reason For Change: Executive Order 11990

Add to the end of this policy: "and other applicable laws."

Suggested Policy Addition:

Design the logging system for a specific area to minimize, to the greatest extent possible, soil disturbance.

Regional Plan:

Area Guide:

Omitted

4. Tractor logging will be permitted only on soils where natural or artificial regeneration occurs within five years with no impairment of soil productivity and where fish and water resources can be protected.

Reason For Change: Content included in Timber, Fisheries, and Wildlife Elements.

Tractor logging is extremely damaging to soil and water resources. While certain policies within the Timber, Fisheries and Wildlife Elements (1) address the need to protect soils, (2) guarantee regeneration within five years, and (3) protect fish and wildlife resources, there needs to be a specific policy relating to tractor logging. Since the policies are all in other places, a specific policy addressing this need should pose no administrative hardship to the Forest Service.

Regional Plan:

Area Guide:

Omitted.

3. Management activities on braided stream bottom lands will be preceded by interdisciplinary team (IDT) evaluation. Timber will not be cut unless natural or artificial regeneration is assured within five years of harvest; and fish, water and soil resources can be adequately protected. The adequacy of protection will be determined through the IDT process.

Reason For Change: Content is included in Timber, Fisheries, and Wildlife Elements.

Area Guide Policies have been incorporated into Regional Plan policies except for the provision outlined above. Revegetating and stabilizing temporary roads is different than rehabilitation following use. Rehabilitation of temporary roads, landings, and skid trails must be included in the Regional Plan.

page 114, 4

Regional Plan:

4. Unless approved in advance by the Forest Supervisor, do not log or road on slopes greater than 75 percent. Prepare prescriptions to reduce the possibility of soil failure on slopes between 35 and 75 percent if a risk of failure exists.

Area Guide:

... Developmental activities on slopes between 35 and 75 percent will receive prescriptions by the IDT to reduce the possibility of soil failure. Developmental activities will not be approved on terrain where IDT evaluation indicates a high likelihood of mass failure and where mitigating measures are not practical.

Reason For Change: Clarification

This policy severely weakens the standards for treatment of slopes between 35 and 75 percent. The new standards have prescriptions being prepared only if a risk of soil failure exists. The Guide protects those areas where the failure risk may not be apparent by requiring prescriptions to be developed for all areas to reduce the possibility of soil failure, whether the area poses an obvious risk or not. With so little known about the actual forest resource, protection beforehand is a much wiser pursuit than mitigation after an accident has occurred.

In addition, the Regional Plan makes no mention of continuing the Guide policy for non-approval of development activities where the likelihood of failure is high.

page 114, 6

Regional Plan:

6. Locate rock quarries and borrow pits and time their use to minimize the impacts upon other resource values.

Area Guide:

8. Rock quarries and borrow pits will be planned through the IDT process. Blasting will be avoided on potentially landslide-prone areas during or within 72 hours following heavy rainstorms, as determined by a hydrologist. Where other sources are available, borrow pits will not be located on such areas. Where no other alternative exists, quarries will be stripped of their overburden and the excavated material hauled to a stable location, seeded with grass and fertilized.

Reason For Change: Clarification

The word minimize can be interpreted many ways. Leaving this interpretation to the discretion of the IDT could have serious impacts on non-commodity forest resources. The few guidelines that exist in the Area Guide are specifically aimed at defining some of what is needed to guarantee this minimal protection. In addition, the Guide guarantees that borrow pits and rock

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There is nothing in the Timber, Fisheries, and Wildlife Elements that specifically addresses management concerns in braided stream land bottoms. While policies within these other elements probably address braided stream bottoms, these areas are of such a high fish and wildlife value and of a fragile nature that specifically re-establishing other policies should pose no administrative hardship for the Forest Service.

Water

page 116, 1

Regional Plan:

1. Maintain a long-term monitoring program on representative watersheds to assess land management impacts on water quality and stream and site productivity.

Area Guide:

1. Maintain a long-term monitoring program on representative watersheds to assess land management impacts on water quality and stream and site productivity in accordance with the objective limitations of the non-point pollution monitoring program.

Data collected through the monitoring program will be used to:

- Determine compliance with and evaluation of Alaska State Water Quality Standards.
- Evaluate impacts of management practices on water resources of the Tongass National Forest.
- Develop "best management practices" to be implemented on unmonitored watersheds to protect watershed values and assure compliance with water quality standards.

Reason For Change: Clarification

The new Regional Plan policy gives no direction on what to do with the data collected during the monitoring program. If the Forest Service plans on using their monitoring program to determine a - c. in the above Guide policy, then they should have no problem including these specific tasks in the plan. Leaving the decision up to Forest Planning does not guarantee that anything will be done to further protect the pristine waters of Southeast.

page 116, 2

Regional Plan:

2. Maintain a long-term monitoring program on representative log transfer and storage sites to assess the effects on water quality and marine habitat.

Area Guide:

2. Maintain a long-term monitoring program on representative log dump and storage sites to assess the effects of organic accumulation and leachates on water quality and marine biota.

Reason For Change: Clarification

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The Forest Service clarified this policy too much. The two most important problems with log storage are organic accumulation and leachates. These should be included in the Regional Plan policy in an open ended statement on the effects. Add on to the end: "marine habitat, including those effects as a result of organic accumulation and leachates."

page 116, 4
Regional Plan:

4. Use water resource inventories and reports to evaluate potential impacts of land management activities. Identify sensitive landforms where non-point source pollution problems are likely to occur and evaluate probable impacts of management alternatives.

Area Guide:

4. Water resource inventories and reports will be used to evaluate potential impacts of land management activities. Sensitive landforms where non-point source pollution problems are likely to occur will be identified and the probable impacts of management alternatives evaluated. The policies below will be followed unless an IDI investigation indicates acceptable management alternatives exist, in which case site-specific prescriptions will be applied to assure watershed protection:

- Roads will not be built across alluvial flood plains or mass wastage areas.
- Roads will only be built across streams in stable reaches.
- Roads and borrow pits will be located away from water courses. Whenever locations near stream courses are recommended, provision must be made for drainage from roads or materials sites to run off through a vegetative screen or sediment basin prior to entering a water body.
- Channel changes will require approval by the Forest Supervisor after consultation with the Alaska Department of Fish and Game.

Reason For Change: Clarification

Again, the Forest Service has deleted specific policies that are needed to insure high water quality. It is assumed that Guide principles will be followed during the forest planning stage, but there is no guarantee. Through the IDI process, the option was available in the Guide to deviate from the specific policies. Guide policies provided the rule and the route for exception when needed. The Regional Plan establishes no rule, whereby all actions could become the exception. If the Forest Service feels the forest planning process will always consider these policies, then they should have no objection to incorporating them into their policy.

219.13(b)(1) of NFMA states that all management practices will conserve soil and water resources and not allow significant or permanent impairment to the productivity of the land.

219.10(b)(6) states a management concern to be considered in the Regional Plan is to "enhance water quality and quantity,"

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that fishery resources are to be considered no more or no less important. You can circumvent fishery habitat needs after giving them equal consideration. It's harder to do that when fisheries are to be no less important than timber.

page 117, 5.a
Regional Plan:

5. Complete a prescriptive plan for proposals for all land use activities:

- The Fish Habitat Management Unit (FHMU) includes all components of the fish habitat as identified through the interdisciplinary process. The FHMU is that portion of land including the stream channel and the stream banks defined as necessary for the protection of stream habitat and maintenance of stream productivity. Give special consideration to that area 100 feet wide on either side of the stream.

The FHMU is managed as a resource no more or less important than the other resources. Within the FHMU, timber management practices and other land use activities are prescribed to meet the management goals for fish habitat.

Area Guide:

All proposals for land use (e.g., logging, hatcheries, hydroelectric projects, developed recreation facilities) will require the completion of a prescriptive plan, with the participation of an IDI. The plan will specify: (1) appropriate Fish Habitat Management Units and (2) prescriptions necessary to meet the goal for fish habitat set forth in this section of the Guide. . . .

- The Fish Habitat Management Unit (FHMU) will consist of all components of the fish habitat as identified through the IDI process. . . . The method of logging within the FHMU will provide for protection of soils, duff and litter layers, shrubs and uncut trees. . . . Those waters determined not to be fish habitat but which influence fish habitat will be adequately protected to insure that the quality of freshwater and marine fish habitat downstream is not impaired. Such protection measures are described in the Soil and Water Accounts of this Guide.

Reason For Change: Clarification

The intent of the Guide policy is fairly well carried over into the Regional Plan. But there need to be some additions. Specific guidelines for the method of logging within a FHMU should be included in the Regional Plan. An example would be including, "The method of logging within the FHMU will provide for protection of soils, duff and litter layers, shrubs and uncut trees." In the Regional Plan it states, "Timber management practices . . . are prescribed to meet the management goals for fish habitat." Regional Plan management goals for fish habitat, because of their general nature, will allow as much protection as the Guide policy.

The Regional Plan must also reflect the need to protect waters that are not directly fish habitat, but which influence fish habitat. The Guide statement covers this well and should be included in the Regional Plan.

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soil productivity, and restore watershed conditions." Area Guide policies establish the minimum management direction for compliance with NFMA. The Regional Plan needs this minimum established.

Fish

219.10(b)(9) of NFMA requires the Regional Plan to address maintenance or improvement of fish and wildlife habitats. 219.10(c) of NFMA requires the Regional Plan to "Issue guidelines for resolving the major public issue." Fish habitat protection is obviously one of the major public issues in this region. The Area Guide promulgated guidelines that resolved many habitat protection conflicts. These guidelines have now been cut.

page 117, 1

Regional Plan:

1. Fully coordinate Forest Service activities with other agencies involved with the fishery resource.

Area Guide:

1. The Forest Service, the Alaska Department of Fish and Game, the Alaska Department of Environmental Conservation, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service . . . are partners in achieving the collective goals of their respective constitutional and statutory authorities.

Reason For Change: Simplification

The Forest Service needs to emphasize, if only for themselves, that they are partners working with other states and federal agencies to achieve the collective goals of everyone. The Forest Service currently operates under the philosophy that their goals (timber harvest) will override other agency goals if it should come to that.

page 117, 3

Regional Plan:

3. The Forest Service recognizes the fishery resource as a major component of the National Forests and the source of numerous important products, benefits and services. Give fish habitat management needs equal consideration with other resources in all Forest Service programs.

Area Guide:

3. The Forest Service recognizes fishery resources as a major component of the National Forest and the source of numerous important products, benefits and services. Fishery resources are to be considered no more or no less important than other renewable resources of the National Forest.

Reason For Change: Clarification

We commend the Forest Service for recognizing the fisheries resource as a major component of the National Forest. However, the Regional Plan policy to give fish habitat management needs equal consideration is weaker direction than the Guide policy

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page 117, 5.b

Regional Plan:

b. Identify temperature-sensitive streams, recognizing State water quality standards pertaining to fish habitat. Such streams require special prescriptions for management of the shade-producing streamside overstory (trees, shrubs, grasses). The amount of overstory that can be removed is determined by reference to guidelines in the Temperature Sensitive Stream, 1977, until revised.

Area Guide:

Unless other measures are specified by the IDI process, the prescriptions for all FHMU will include the following:

- All trees within crown height of a fish stream will be felled away from the stream except those which cannot be felled away from the stream for safety reasons and which are marked on the ground by a site administrator. Any tree felled into or across a fish stream must be removed within 48 hours. Within areas designated for cutting, felled or windfallen trees must be bucked and limbed clear of the streamcourse debris entering the stream.
- Significant quantities of limbs, branches, bark, sediment and other identifiable logging debris will be removed from fish streams and areas subject to flooding to a point above the high water mark within 48 hours after such debris is deposited.
- Streambank brush, grass and trees not designated for cutting will be protected to provide bank stability, shade and terrestrial insect habitat.
- All logs will be fully suspended when yarding across any designated fish stream. Fish streams will be identified on the project.
- Temperature-sensitive streams will be identified, recognizing State water quality standards pertaining to fish habitat. Such streams will require special restrictions on canopy removal, including:
 - A percentage limit of streamside overstory/canopy which may be removed in the initial entry.
 - An amount of brush and understorey, including scrub trees, that will be left standing and not damaged to the extent their shade-producing capability is materially affected.
 - Spaces between openings (described by size and shape) and areas which will not be cut (described by width and length and cardinal direction).
- Location of roads within an FHMU, parallel to fish streams and crossing fish streams will be permitted only where other locations are not feasible and the management goal for fish habitat can be met. Where roads are located near fish streams, introduction of sediment must be avoided; siltcasting and waste materials must not encroach upon the streamcourse; and as much

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undisturbed ground cover as possible shall be left between the road and the stream. Complete removal of waste material will be required where roads are located near fish streams when there is the probability of downhill movement of this material into the stream below. Fill will be placed into fish streams only when considered through the IDT process to be the best alternative. Fish passage must be assured at all locations where roads cross fish streams. Prescriptions will specify permissible uses of heavy machinery and the timing of road construction activities.

(7) The use of intertidal gravel as a source of borrow shall not be allowed in areas where pink and chum salmon spawn.

(8) Blasting that adversely affects fish spawning beds will be limited to times when eggs and alevins are not vulnerable. Safe times and distances will be determined on a site-by-site basis in conjunction with the Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Game Wildlife Service.

(9) Streamcourses may not be changed or diverted without written approval from the Forest Supervisor, who shall issue such approval after consultation with Alaska Department of Fish and Game, National Marine Fisheries Service and U.S. Fish and Wildlife Service and where it is clear that habitat impairment will not result.

(10) A plan and time schedule for felling and yarding timber within any field will be developed and approved by the Forest Service and delivered to the operator before that unit is released for cutting.

(11) Where the IDT process determines that soil conditions, water temperatures, logistical problems or other factors are such that an activity cannot be carried out in conformance with the goals and policies of the Soil, Water and Fish Accounts of the Guide, those activities will not be permitted.

Reason For Change: Referred to Forest Planning

The omission of the prescriptive policies in this section constitutes one of the biggest travesties of this plan. Fish habitat, as exemplified by the participation of concerned citizens in the preparation of the Area Guide, is a major public issue.

The only specific guideline in this section of the Regional Plan addresses temperature sensitive streams. The region evidently feels that the forest planning process needs specific

guidance in developing their prescriptions for temperature sensitive streams. We feel all of the omitted policies must be reinstated. Each of these policies, including temperature sensitivity, is essential to guarantee the continuation of a healthy fishery.

Regional Plan:

Omitted

Area Guide:

6. At the allocation level, the interdisciplinary team process will provide sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas and the cumulative impacts of multiple land use activities over large areas. In the prescriptive phases of the planning, IDTs will validate allocations, write prescriptions and monitor actions.

a. During the land management plan phase, an IDT will assist in land allocation decisions by providing sufficient information to permit allocations which recognize the capabilities and sensitivities of major fish habitat areas. Of special importance will be identification of areas which warrant designation as LUG 1, II or III because of high vulnerability to development impacts, productive capacity, associated recreational opportunities, or other factors. In addition, the IDT process will be directed at responding through allocations to the potentiality of cumulative or collective impacts resulting from multiple land use activities over large areas which may escape notice or control during the implementation phases.

b. During the prescriptive phase, the IDT process will be utilized as described in the succeeding policies.

Reason For Change: Referred to Forest Planning.

These guidelines are necessary for forest planning. They outline the process the IDT must follow in planning for the fishery resource. 219.4(a) of NFMA states that, "Regional planning is the principal process for conveying management direction from the national level to designated forest planning areas." To implement the national directive for fish habitat (219.10(b)(9)), the region must be assured that the forest will indeed follow a procedure that will lead it to a satisfactory end. This section of the Guide does so and should be included in Regional Plan policies.

Regional Plan:

Omitted

Area Guide:

9. The Forest Service will insure that land use activities in or affecting Fish Habitat Management Units are carried out in full compliance with applicable plans and policies. Policies will be stipulated in appropriate contracts, where significant violations or instances of damage or unforeseen problems occur, whether reported by Forest Service personnel or other agencies or individuals.

Reason For Change: Referred to Forest Planning.

The Area Guide sets out in very specific detail the actions to be taken in the event of damage to fish habitat. While the extensive policies of the guide may not be needed, a statement of some sort should be included in the Guide.

Wildlife

The protection of old growth habitat for Sitka black tail deer and other species is a major issue this plan must address.

page 120, 1 and 2

Regional Plan:

1. Fully coordinate with other agencies involved with the wildlife resource.

2. Solve mutual problems and achieve common goals through the Master Memorandum of Understanding between the Forest Service and the Alaska Department of Fish and Game.

The Forest Service must learn to move beyond coordination, which can mean merely asking for input and ignoring it (which seems to be the case most of the time). If they mean to make a commitment to actually grapple with the wildlife problems on the Tongass and are willing to listen and follow the advice of other agencies, they should say so. Otherwise, this indicates lip service to the NFMA requirement to work with other agencies and nothing will change in Southeast.

page 120, 3

Regional Plan:

3. The Forest Service recognizes wildlife resources as a major component of the National Forests and the source of numerous important products, benefits and services. Give wildlife habitat management needs equal consideration with other resources in all Forest Service programs.

Area Guide:

See comments listed on 117, 1.

Area Guide:

See comments listed on 117, 3.

Giving equal consideration to the needs of wildlife habitat management does not insure that the needs of wildlife will be met. One can consider, then do anything they please. The Forest Service should give wildlife habitat the treatment asked for by ADF&G.

page 120, 5

Regional Plan:

5. The Alaska Department of Fish and Game and the Forest Service should jointly establish population objectives for wildlife and identify the amount and quality of habitat needed to sustain the desired population objectives.

Area Guide:

Similar statement.

ADF&G has been trying to do this for years. However, the Forest Service has ignored their data and recommendations. It is stated on page 27 of the Draft Regional Plan that ADF&G "has primary responsibility for management of wildlife and fish populations." If this is indeed the case, the Forest Service should yield to their recommendations and recommend to Congress to lower the timber harvest. Otherwise, it is only a procedural statement meant to satisfy the law and have no real effect on forest management.

page 120, 7.a

Regional Plan:

7. Implement policies through the interdisciplinary team process:

a. Recognize the capabilities and sensitivities of important wildlife habitat areas in land allocation.

Area Guide:

Similar statement.

This policy says to only "recognize" the capabilities and sensitivities of certain habitat areas. One can recognize the value of an area for wildlife habitat and still clearcut it. The Forest Service must come to grips with the wildlife habitat question. Simply continuing to recognize the existence of a problem does not solve the problem or save any of the remaining habitat.

page 120, 7.c

Regional Plan:

(3) The Forest Service recognizes the importance of wildlife habitat, and timber harvesting will be planned to protect or enhance that habitat.

Area Guide:

c. Provide the habitat management standards necessary to insure that the viable population levels of all wildlife and fish on the Forests are maintained over time despite natural fluctuations in population numbers.

Reason For Change: Clarification

The Area Guide standard follows much closer the intent of NFMA to "maintain or improve fish and wildlife habitats" (219.10(b)(9)) and "to maintain and improve habitat of management indicator species" (219.12(g)). Simply providing the habitat management standards to insure viable populations does not guarantee maintaining or improving habitat.

Regional Plan:

Omitted

Area Guide:

7. All proposals for land use (e.g., logging, hydroelectric projects, developed recreation facilities or transportation corridors proposed by other agencies) will require the completion of a prescriptive or implementation plan, with the participation of an IDT. The plan will specify: (1) appropriate Wildlife Habitat Management Units (WHMUs) and (2) prescriptions necessary to meet the goal for wildlife habitat set forth in this section of the Guide.

Reason For Change: Referred to Forest Planning.

The Area Guide policy is identical to the one in the Fish and Estuary and Tidal Meadows Elements. There is a Regional Plan policy in the Fish Account and the Estuary and Tidal Meadows Account. However, a clarification of the wildlife policy has been omitted in the Regional Plan. A similar statement needs to be included in this Wildlife Element. Wildlife Habitat Management Units should be identified primarily by ADF&G, who has lead responsibility in this issue (see page 27, DRP).

Regional Plan:

Omitted

Area Guide:

a. The prescriptions will provide for protection and enhancement of sufficient winter and summer range, browse and food sources, protective cover and migration corridors, nesting, feeding and resting sites. . . . The prescriptions will also address the relative need to preserve mature and old growth forests; to insure sufficient browse reproduction in second growth stands; to avoid population decreases below pre-determined levels as a result of displacement during forest development; to recalculate rotation periods or other silvicultural practices based on wildlife habitat needs; and to specify the percentage of an area to be cut during a given entry.

c. The prescriptions for all WMU will include the following unless more restrictive measures are prescribed by the IDI process:

- (1) Wildlife habitat requirements can be partially met through the size, shape, location and dispersal of cutting units, areas retained in natural conditions, silvicultural systems, and multiple entry harvesting.
- (2) Identification of existing or potential opportunities for viewing and photography.
- (3) Provision for insuring that a maximum number of snags are retained for wildlife use consistent with the objectives for particular societies, aesthetic values and Federal Occupational Safety and Health Act requirements.
- (4) Tracked vehicle and truck operations within waterfowl habitat, where permitted, shall be confined to constructed roads except in the case of beach salvage operations. Such activities shall be situated behind a timber screen where possible.

Reason For Change: Referred to Forest Planning.

-36-

Reason For Change: Clarification

See Fish Element, Area Guide, second to last comment.

page 123, 4

Regional Plan:

a. Prepare an interdisciplinary plan for all proposals for use (e.g., mining, logging, aquaculture, hydro-electric projects, developed recreation facilities) in this plan specify (1) appropriate Estuary Management Units (EMUs); and (2) formulation of prescriptions. . . . an EMU includes components of an estuary and adjacent areas determined to be necessary for implementing management prescriptions. an EMU will not exclude management activities consistent with the goals for estuaries.

Area Guide:

b. Localized management and protection prescriptions that are based upon the characteristics and sensitivities of the area and which will meet management goals will be developed by the IDI process. Input used by the IDI will include all factors necessary with respect to establishment of Fish Habitat Management Units and Wildlife Habitat Management Units therein, together with recreational and other human usage patterns. In instances where State tidelands and submerged lands are involved, land use activities by private operators are approved by the State and/or Corps of Engineers through the permit or lease process; prescriptions will provide that any application for a permit or lease must cover all proposed activities. All prescriptions relating to activities on estuaries and wetlands will include the measures prescribed below, unless more restrictive measures are prescribed in the IDI process:

(1) Unavoidable activities that may have a disturbing or disrupting influence on fish and wildlife species or habitat during critical life history periods (e.g., nesting and feeding) will be scheduled for time periods when such influence will be minimal or nonexistent. Such times will be determined prior to the proposed activity in cooperation with the Alaska Department of Fish and Game and other agencies.

(2) Forest development activities within or adjacent to estuaries and wetlands will be avoided unless determined by the IDI process to be consistent with management goals. Permanent road systems may, through the planning process, incorporate provisions for user and scenic turnouts, where roads or other facilities are approved for location near estuaries, fills, sidestepping and waste materials, they must not encroach upon such areas unless recommended during the interdisciplinary process. As much undisturbed ground and cover as possible must be left between the activity or facility and the estuary to reduce or eliminate disturbance of fish, wildlife, or recreational values. The use of intertidal areas as a source of borrow will be limited to those areas and methods stipulated as being compatible with the character of the area and where the borrow source can be returned to a natural appearance subsequent to use.

-35-

Section 219.10(c) of NFMA states that the Regional Plan will issue needed guidelines for resolving the major public issues identified through public participation. Wildlife and habitat needs constitute the biggest issue of public concern. The Regional Plan must address this issue. A starting point is to include those portions of the Area Guide which give some direction to forest planning for wildlife. In addition, the Regional Plan must tackle the deer/logging controversy. Putting this and other wildlife habitat decisions onto "forest planning" does not solve the problem. We've already been told that TLMP and management area plans will not deal with this issue, yet the Regional Plan points to them for solutions.

Regional Plan:

Omitted

Area Guide:

12. Where violations of contracts or permits or instances of damage or unforeseen problems occur, the policies and procedures set forth in Policy 9 in the Fish Account will apply.

See comments in Fish Element, last paragraph.

Estuaries and Tidal Meadows

page 123, 2

Regional Plan:

2. Recognize the ecological role of intertidal and marine areas in supporting fish, shellfish and wildlife populations in management decisions affecting habitat.

Area Guide:

2. Management decisions on activities within estuaries and wetlands that affect fish and wildlife habitat will be governed by the policies and procedures on Fish and Wildlife set forth in this Guide.

Reason For Change: Clarification

Recognizing the ecological role of intertidal and marine areas does nothing to protect them or give any direction to the Forest for how proposed developments should occur. The policies set forth in the Fish and Wildlife Elements of the Guide should be the criteria used to guide management decisions in estuaries and tidal meadows. Estuaries should be recognized as one of the richest food producing ecotypes in the world and management decisions should reflect this high use.

page 123, 3

Regional Plan:

3. Make determinations through an interdisciplinary process.

Area Guide: Where proposed activities involve estuaries and wetlands, the IDI process must be structured and implemented in a manner which insures that the management goal for estuaries and wetlands will be met. . . . Plans for managing individual estuaries and wetlands will be prepared at the implementation level. Included in these plans will be an evaluation of all factors influencing fish and wildlife habitat as well as other natural factors and values as they may be impacted by various land use activities. Because ease of access and other characteristics make estuaries and wetlands popular locations for various activities and developments that may substantially alter these areas, policies

as the

(3) Forest development activities on grass flats and tide flats will be limited to those areas specifically selected during the interdisciplinary process and approved by the Forest Supervisor as being compatible with the character of the area and of minimal impact.

(4) A distance separating camps, cabins, and other structures from tide flats used by aquatic and terrestrial life forms for feeding, nesting, or resting sufficient to avoid significant interference will be established. Structures shall be located far enough from spawning streams to avoid disturbance of fish.

(5) Roads, buildings and all other facilities and operations not requiring direct water access will normally be located behind a zone of windline timber. However, the IDI may recommend otherwise if the character of the area would not be significantly impaired.

(6) With respect to general types of developments (docks, landings, floats, boat ramps) requiring water access, the following are intended as selection criteria during the IDI process regarding the choice of sites:

(a) Minimum distances between the sites and the mouths of intertidal channels of known anadromous fish streams sufficient to avoid significant interference will be established by the IDI process.

(b) Minimum distances between the sites and tide flats or subtidal beds of aquatic vegetation will be specified during the IDI process to avoid significant impairment.

(c) The filling of intertidal and subtidal areas will be restricted to those sites having the least value as habitat for marine organisms and vegetation.

(d) Areas with established uses such as commercial and sport fishing, hunting and anchorages for commercial and recreational vessels will be avoided unless the IDI process determines that location of sites may be accomplished in a manner that is compatible with such uses.

(7) The following are intended as selection criteria to assist the IDI process in the choice of locations for log transfer and storage sites in estuarine areas:

(a) The number of active log transfer sites and storage areas in any given bay or bay complex will be minimized by selecting locations that will accommodate future logging without requiring additional transfer or storage sites.

(b) The steepest submerged lands having the least productive intertidal and subtidal zones will be considered first during site selection. Slopes of 40 percent or more are desirable.

(c) Log transfer sites along straits, channels and the shores of deep bays where currents may aid in dispersing debris will be considered first during site selection.

(d) Rafting and log storage areas will be in the deepest water possible with a minimum depth of 13 meters (40 feet) at mean lower low water. Further, logs or rafts must not be allowed to ground at any tides stage if there is a possibility of damage to bottom organisms. Timber purchasers should be encouraged to transport stored logs to their final destination as quickly as possible to reduce impacts associated with long term storage in estuarine waters.

(e) Sites in deep bays rather than in shallow bays should be considered first; bays without sills or other natural restrictions to tidal exchange should be selected. Log transfer sites should be located near the mouths of bays rather than at the heads of bays unless the environment at the mouth of the bay is of special significance.

(f) With respect to any permit application to the Corps of Engineers for a log rafting or storage or transfer site, the Forest Service will provide its expertise on specific or alternative sites.

Reason For Change: Referred to forest planning.

Estuaries and Tidal Meadows provide valuable habitat for both fish and wildlife. The management of these areas and that effect on fish and wildlife populations is a major regional issue requiring regional direction to the forests. What better direction than the Area Guide rules which have been operating for the past six years. NFMA requirements direct regional involvement to "maintain or improve fish and wildlife habitats" (219.10(b)(9)), "issue needed guidelines for resolving the major public issues . . . identified through public participation" (219.10(c)), and "to maintain and improve habitat of management indicator species" (219.12(g)). In addition, it is appropriate for the region to give specific direction, because any management practice, regardless of its specificity, will "protect streams, streambanks, shorelines, lakes, wetlands and other bodies of water. . . ." (219.13(b)(4)).

Regional Plan:
Omitted

Area Guide:

6. The policies and procedures with respect to violations and instances of damage in the Fish and Wildlife Accounts in this Guide will be applicable to estuaries and wetlands as well. Application of such policies and procedures will include instances of damage to recreational and aesthetic values as well as to fish and wildlife habitat.

See Fish Element, last paragraph.

Recreation

page 137, 7

Regional Plan:

7. Incorporate in Forest land management plans recreational designations that include portions of representative plant and animal communities.

Area Guide:

7. Incorporate in the Tongass Land Management Plan proposals for recreational classification that include significant portions of representative vegetative and landform types present in Southeast Alaska.

Reason For Change: Clarification

Missing from the Regional Plan policy is the word "significant". A significant portion is needed to guarantee a continuing and viable representative sample of various plant and animal communities.

page 138, 12

Regional Plan:

12. Maintain the quality and diversity of recreational experiences and opportunities presently available on the Chugach National Forest by proposing a formally designated system of roadless recreational and wilderness areas.

Area Guide:

12. Maintain the quality and diversity of recreational experiences and opportunities presently available on the Tongass Forest by proposing a formally designated system of roadless recreational and wilderness areas.

The Forest Service should continue their evaluation, during the planning process, for possible future additions on both forests to the wilderness system in Alaska.



ALASKAN WILDERNESS SAILING SAFARIS

P.O. Box 701 • Whittier, Alaska 99693 • Phone: (907) 277-0160 (message)

WINTER ADDRESS:

P.O. Box 2236 • Valdez, Alaska 99686

November 3, 1981

John A. Sandor
Regional Forester
ATTENTION: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau,
Alaska 99802

Dear Mr. Sandor,

I am writing to comment on the Draft Alaska Regional Plan (DARP). Thank you for inviting public comment.

I. Public comment: The issue of public comment is nowhere addressed in the DARP. I would like to see a statement added that all DEIS, Forest Plans, Environmental Assessments for all resources, timber sales, etc. be sent to all persons on the Forest Service's mailing list.

I have had a repeated problem over the past fifteen years learning about Chugach Forest activities. I have filled out the Freedom of Information card and done everything I know of to have my name placed on all mailing lists kept by the Chugach National Forest office. However, almost every year there has been a case of a decision being made following an unpublicized public comment period about which I had no information or knowledge prior to the close of the public comment period. The most recent case was a draft Environmental Assessment for recreation cabins in the proposed Nellie Juan Wilderness Area. We use this area heavily both personally and for business purposes and have discussed our concerns about the FS management options in the area repeatedly with personnel from the Chugach National Forest, and still I did not receive a copy of the Environmental Assessment on Recreational Cabins until another charterboat skipper who took out a Forest Service work party learned inadvertently about it and mentioned it to me. I received a copy fifteen days after the close of the sixty day public comment period.

Lethcoe -2

II. Lack of Alternatives in the Regional Plan: I am most unhappy that the DARP did not present alternatives, but only the FS preferred choice as this conceals from the reader other possible options and the reasons for rejecting them. It is difficult, if not impossible, to adequately evaluate the preferred plan without knowing the alternatives. This information should have been provided. I ask that subsequent DARP include alternatives and that all Forest Plans include alternatives.

III. p. 102: Projected Outputs: Chugach:

1. The figures of 15 decreasing to 10 million board feet are too high for the Chugach National Forest. They should be reduced to a figure equal to the amount of commercially valuable timber remaining on the CNF after completion of State and Native selections that can be managed on a sustained yield basis while providing some commercially valuable stands to remain for recreational purposes.

a. Timber sales on the CNF have not been cost effective in the past. No future timber sales should be made unless the timber sale covers all real Forest Service expenses.

b. Timber sale output should be reduced to further reflect loss of commercially valuable timber to State and Native selections.

c. Marginal timber stands should not be harvested.

2. The projected figure for wildlife habitat improvement is too high. Prescribed burning should not be used for wildlife habitat improvement, as it favors certain types of wildlife at the expense of others.

3. The targets for developed and dispersed recreation use do not match statements under recreation in the regional plan where existing, dispersed recreation seems to be the favored type. Output figures indicate greater emphasis will be placed on developed recreation after 1983-1984. This should be changed to agree with statements in the DARP on recreation. I am very concerned that output targets like this might be used as justification for converting areas currently receiving considerable dispersed recreation use into developed recreation areas, such as happened last summer in the case of the Chugach National Forest and its Safety? Recreation? cabins in western FWS.

NOV 9 1981

REST SERVICE O I
SAILBOAT CHARTERS:
Guided Flotilla -
Bareboat
Lessons
Cannibal Cruises

SPECIAL CRUISES:
(College Credit Option)
Sailing Lessons
White Watching
Natural History

SAILBOAT SALES:
Dealers for
Tanner 16-22-75
San Juan 21-24-28-38
Nordic Yachts 40-66

C-83

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IV. Wildlife:

1. Please add a section providing for song bird perching areas in created forest openings.
2. The section addressing plant and animal diversity needs clarification. I gather these decisions have been completely allocated to Forest Plans. It is unclear from the Regional Plan what options for plant and animal diversity are being eliminated for consideration by Regional directives that will take precedence over Forest Plans. The entire topic of plant and animal diversity has been totally obscured in the DARP. (Please see page 4).
3. Please add a statement that all DEIS, Environmental Assessments, etc. will be mailed to persons on the Forest Service mailing list.

V. Minerals:

1. p. 136: add to 3.: . . . and mail to all people on the mailing list and announce in local newspapers.

VI. Timber:

1. Maximum size of created openings:
Please add: 100 acres is the maximum size of created openings. Factors considered in deciding the actual size of a created opening up to 100 acres will be the same as those used when a larger size area is considered, i.e. those listed in DARP pp. 128-129.
2. p. 130 d. Please add: . . . standing dead snag for song bird roosting perches.
3. Please add: All environmental Assessments, DEIS, timber sale announcements and other public announcements will be mailed to all persons on the regular FS mailing list and announced in local newspapers.
4. p. 127: Standards for Alaska's Hardwood Forest types: Diversity and natural succession should not be interfered with in non-commercial forest lands by selecting management objectives to perpetuate a single species or forest type through artificial means, such as prescribed burning. Please change to say that the FS will not prescribe management objectives for non-commercial forest lands that interfere with plant diversity or natural succession.

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9. Standards for Forest types in Alaska Region: Spruce/Hemlock.

Please add "Big game forage and cover" as a consideration in the management of Western Hemlock/Spruce type Forests. Sitka deer, and to a lesser extent Mountain Goats and fur bearers need old growth stands for winter habitat.

10. Management Intensity: I do not agree that the timber supply for the Tongass National Forest need to be continued at a rate of four billion five hundred million board feet per decade. Cost effectiveness should be considered more important than continuing artificially maintained local economies. Timber sales that produce a profit considering all FS expenses should continue to be made, those that do not, should not be offered.

The FS should work to have this figure reduced to a reasonable management level given the realities of State and Native selections from the Tongass and the new availability of timber from private and state lands in the area.

All salvage, marginal, and other types of timber taken from the forests should be included in calculating the amount of timber made available to the timber industry.

Management prescriptions should give high priority to obtaining the greatest dollar return.

VII. Recreation:

1. p. 138, 15. Add: . . . and to inform residents and visitors of recreational opportunities and conservation practices within the National Forest . . .

add d: Assisting the public in recognizing adverse impacts of recreational use on the environment (such as littering, illegal cutting of trees, harassment (intentional or out of ignorance) of spawning salmon,) and showing what can be done positively to avoid this.

e. Implement "no trace" woodsmanship and "pack-it-in/pack-it-out" program for all dispersed recreation visitors with cooperative State/Forest Service implementation at all smallboat harbors in communities adjacent to a national forest.

2. p. 139: add. Environmental assessment plans will be mailed promptly to all people on Forest Service mailing lists and announced in local newspapers.

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5. p. 133. Prescribed burning should not be used in non-commercial forests lands for artificially maintaining a forest type or improving wildlife habitat.

6. I do not see any section addressing the need to maintain plant species and age diversity in the forest. Regional plans should have considered setting maintenance levels for diversified forest types.

I suggest the following be added:

Goals, objectives, and monitoring requirements will be established for plant management indicator species.

Describe in Forest plans the anticipated effect on plant diversity; the management plant indicator species selected for management and monitoring purposes; the reasons for selecting the indicator species; the monitoring schedule; and the expected precision and accuracy of the monitoring process.

Utilize the following criteria to select management plant indicator species, keeping in mind the need to restrict species to a practicable number:

a. Plant species identified in State lists of endangered or threatened species or in public issues or management concerns;

b. Plant species for which there are current and/or anticipated conflicts, concerns or issues relative to habitat requirements and other resource management activities;

c. Plant species for which the planning area comprises a majority of the species total Forest, Statewide, Regional or National habitat.

d. Plant species which represent or reflect environmental suitability for other species.

7. Biological Growth Potential: 20 cubic feet per acre per year is too low. The FS and tax payers will end up subsidizing the timber industry by classifying marginal timber lands as commercial and selling the timber for less than the management, reforestation, etc. costs. Please change this to 50 cubic feet per acre per year.

8. p. 130, 131. Five feet in height is insufficient for declaring a cutover area no longer an opening. Six feet would be better.

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3. p. 54. The FWS region spruce and hemlock forests are not like those of southeastern Alaska in that they are more open and are interspersed with peatland bogs and areas of alpine tundra beginning from tideline. Hiking is extremely easy. We professionally lead tourists of all ages (5 months to 86 years) on mild to rigorous cross country hikes. Trails are not needed in either wilderness or dispersed recreation areas. They would interfere with existing usage.

4. p. 152. add. Evaluation reports will be made available to the public on request.

5. p. 137. add. Developed recreation activities, such as cabins, resorts, etc., will not be placed in areas of established existing dispersed recreational use.

or
Add. Cabins will not be located in/adjacent to established anchorages or in the vicinity of existing tent camping usage, but will be placed in suitable areas to open up new recreational opportunities.

VIII. Wilderness:

p. 141, 9. Add: Forest Plans will clearly spell out the criteria to be used in determining where new cabins and shelters may be built for the protection of public health and safety. Cabins will not be built in proposed or formal wilderness areas unless a clearly established need for public health and safety has been met. Cabins will not be located in or adjacent to anchorages or in the vicinity of established tent camping sites. All cabins will be screened visually as much as possible.

p. 141.7. When aquaculture projects are considered in proposed or existing wilderness areas, a Forest Service expert in wilderness management will be part of the interdisciplinary team developing the Aquaculture EIS and in monitoring the construction and operation of the Aquaculture site.

Respectfully Submitted,

Nancy R. Lethcoe

Nancy R. Lethcoe

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CITY OF YAKUTAT

Mr. John Sandor
U.S. Forest Service
Page Two

October 30, 1981

Mr. John Sandor
Regional Forester
Attention: Regional Plan
U.S. Forest Service
Box 1628
Juneau, Alaska 99802

RECEIVED
NOV 9 1981

FOREST SERVICE O.I.

Dear Mr. Sandor:

We have received a copy of your Draft Alaska Regional Plan and the Draft Environmental Impact Statement for that plan. There are a number of comments we would like to make from the perspective of a local community within the Tongass National Forest, and one which will be connected by road to any timber sales within a radius of 50 miles.

A. The section on "The Economic and Social Setting" in the Draft EIS seems to assume that the impact of Forest Service activities on local communities can best be measured by the changes they will cause in population and in standard measures of economic activity. In most areas of Southeast and Southcentral Alaska these are not particularly useful indicators. Impacts will be much more direct and specific. Sales adjacent to small coastal communities may cause an impact on medical services, water, sewer, electricity, demand for developed lots, access roads, subdivision development, small boat moorage needs, traffic, human services, fire protection, etc. While these cannot be quantified by a single uniform set of statistics, such as USDOL employment projection, or standard DOL economic indicators, they are much more direct and much more real, and also much more accurate than the use of standard indicators.

B. The "Economic and Social Setting" section of the EIS is somewhat unclear about what steps are to be taken in the development of Forest Service plans in order to mitigate the impact on existing local residents and their communities; the Draft Regional Plan is somewhat more clear in terms of espousing general policies endorsing cooperation with local plans. It is evident, however, that this cooperation will be limited to the expression of preferences by local governments in response to previously developed alternatives by the Forest Service (i.e. through the public comment process). This process certainly gives local communities the chance to comment, but it does so within a format which is so restricted as

to minimize the possibility of any given Forest Service activity incorporating in its design any measures to mitigate local impacts. We would recommend two changes in the Forest Service procedure:

1. Local communities should be involved in the planning process long before the point where comment is reduced to the choice between alternatives.
2. The Forest Service procedures involve taking measures to mitigate the impact of activities on fish, birds, and animals. We would like to see that process extended to human beings as well. If the actions of the Forest Service are going to have an impact on a community, it would seem only reasonable that the Forest Service take action to mitigate that impact. Under existing processes this mitigation is haphazard at best.

C. Neither the Draft Plan nor the Draft EIS considers the 450 million board foot per year harvest level as anything but a guess. It was our impression that one of the duties of the Forest Service was to report back to Congress on the possibility of sustaining that harvest level. Isn't the Regional Plan a logical place to address that issue?

D. We are opposed to the Plan's use of advanced roading as a tool for forest management. This procedure is clearly an administrative shuffle which removes road costs from the computation of sale costs, justifying what would otherwise be marginal if not unjustified sales.

E. If meeting the 450 MMBF quota is a problem, why does the Draft Plan propose to exclude utility logs from the computation of yield? The same is true for timber harvested off of lands producing less than 20 cu. ft./year. We would think that the Plan would seek to include all of the timber harvested on the Tongass in its computation of yield.

The Forest Service's planning and operations will certainly have an effect on our community. We appreciate the opportunity to participate in the process of planning for those operations, and we look forward to continuing that active relationship in the future.

Sincerely,
Arthur Monson
Art Monson
City Planner

AM/krm



NATIONAL WILDLIFE FEDERATION

1412 Sixteenth Street, N.W., Washington, D.C. 20036 202-797-6800

November 6, 1981

Mr. John A. Sandor
Regional Forester
Forest Service
U.S. Department of Agriculture
P.O. Box 1628
Juneau, Alaska 99802

RECEIVED
NOV 10 1981

FOREST SERVICE O.I.

Dear Mr. Sandor:

The National Wildlife Federation submits the following comments on the Draft Regional Plan and Draft Environmental Impact Statement for Alaska. The Federation recognizes the importance of the regional planning process and appreciates the opportunity to comment. It is hoped that the following suggestions will be useful as the Forest Service prepares its final plan for the Alaska Region.

In general, the Federation is concerned that the plan does not sufficiently address the issue of old growth timber harvesting vs. management of wildlife and fisheries in the Region. Also, the definition of the minimum biological growth potential improperly promotes timber harvesting over other multiple use objectives. The Federation's detailed comments are as follows.

Old Growth Timber Harvesting vs. Wildlife Management

The Draft Regional Plan fails to discuss how the timber harvesting vs. wildlife controversy in the Tongass National Forest is being handled. Because the 4.3 billion board feet per decade mandate of the Alaska Lands Act is being met without knowing fully the impacts to wildlife, especially Sitka black-tailed deer, it cannot be confirmed that the Forest Service is maintaining the present wildlife populations in the Tongass. The steps that are being taken to maintain the existing populations should be outlined.

The Draft Regional Plan does not discuss fully the options available to the Forest Service for resolving the old growth/wildlife issue. Specifically, the plan should discuss Sec. 706(a) of the Alaska Lands Act, which authorizes the Secretary to monitor the timber supply from the Tongass and report annually thereon to Congress. Furthermore, if it is found that the timber supply cannot

John A. Sandor
Nov. 6, 1981
Page 2

be maintained from the available land base, this shall be included in the report. Sec. 706(b)(3) of the Act provides for a report five years after the date of enactment of the Act and every two years thereafter to include "measures instituted by the Forest Service to protect fish and wildlife in the forest." Since fish and wildlife are to be protected, the pressures on fish and wildlife populations from timber harvesting should be considered in determining the available land base.

The Regional Plan should address how the Forest Service is progressing in determining or defining the "available land base." The criteria should be given as to how the Forest Service makes its determination on whether or not the harvest mandate can be achieved. Since this is a major issue in the region, a separate section should be included in the monitoring and evaluation section in Chapter VI on how this problem is being monitored and evaluated.

Fisheries Management

NWF feels that the Draft Regional Plan does not sufficiently address the management of fish populations. Too many policies in the Southeast Alaska Area Guide are either discarded or deferred to forest planning. Specifically, guidelines developed to protect fisheries should be retained. These policies are pertinent to management activities that occur throughout the region and should apply to all forests. With the proposed changes, it is doubtful whether fish populations can be maintained at existing levels.

Definition of Commercial Forest Land

The National Wildlife Federation opposes the alternative chosen for the definition of the minimum biological growth potential. Such a designation does not give an accurate account of those lands which are truly productive, "commercial" forest lands. By using such a low designation, the amount of land available for harvest becomes inflated and the annual allowable harvest calculation is biased towards timber harvesting. The use of this low standard deprives the public of an accurate picture of the amount of forest lands which produce the most economic return through timber harvesting as opposed to other resource uses. Moreover, the potential is so great that the most productive sites will be overcut to make up for the lack of production on lands defined as commercial but which in fact are poor producers of timber.

NWF recognizes that Sec. 705(d) of the Alaska Lands Act provides that Sec. 6(k) of the National Forest Management Act (NFMA) need not be binding for the Forest Service in the Tongass. (Section 6(k) requires the Secretary to identify lands not suited for timber production for economic or other reasons and to disallow timber

harvesting on these lands for 10 years.) Although there is no requirement that timber not be harvested because it would not be economically profitable, this does not mean that timber harvesting done on Forest Service lands in the Tongass or elsewhere in the region generates the most economic return. Some sites may produce a greater return through other uses.

Of direct concern to the Federation is the potential destruction of wildlife habitat under the guise that the land provides greater economic benefits through timber harvesting. What about the revenues generated to the local economy through hunting and fishing? Isn't it possible that lands which are marginal may produce a greater economic return through recreational or other uses? The Regional Plan should examine the economic trade-offs involved in determining the biological growth potential, or more specifically, the definition of land available for timber production. Granted, the outputs provided by such things as fishing, hunting, watershed production, visual amenities, etc., may be difficult to quantify, but an attempt should be made. By doing so, NWF believes the management of the National Forests in the Alaska Region will be more responsible.

The Forest Service's bias towards using 20 cubic feet per acre per year as the standard is obvious in the DEIS. Instead of examining the implications of various alternatives, only one "alternative" is given. At a minimum, there should be one other alternative for the Forest Service to examine. The public should be given the opportunity to scrutinize the rationale the Forest Service uses to choose the Preferred Alternative. This analysis is best done by comparing the impacts of different standards.

The planning team should consider designating 50 cubic feet per acre per year as the standard for the Region's biological growth potential. This would exclude most marginal lands from the definition and not put excessive pressure on the most productive sites.

As mentioned earlier, Sec. 706(b)(3) of the Alaska Lands Act indicates a desire by Congress to protect fish and wildlife values. By using a 50 cubic feet standard in determining the available land base, fish and wildlife values may be adequately considered. The Forest Service should explore this possibility.

Snag Management in Created Openings

Section 2630.3(8) of the Forest Service Manual sets snag management as a policy to be instituted on the National Forests. Section 2630.41 requires the Regional Forester to develop guidelines and standards to fulfill the objectives of this and other fish and wildlife management policies. Neither the DEIS nor the Draft

often used for timber harvesting, this would give an indication of the extent to which the Forest Service will be opening up new areas to this activity.

The Draft Regional Plan and DEIS should go into more detail as to the management of slash. To what extent will slash be removed to provide better access for deer? Will prescribed burning be used to dispose of slash and help control dwarf mistletoe? Or will slash be chipped on the site to improve access? Because of the slash left in clearcuts throughout the region, these questions should be addressed and measures taken to allow deer to use these areas to the maximum extent practicable.

The planning team should include appendices in the DEIS or Draft Regional Plan which list the issues raised through public participation and how the issues will be resolved. Appendices C and D in the DEIS for the Pacific Southwest Region are a good example of this. Included in this section should be the old growth vs. wildlife issue.

The plan should also focus on the extent to which the Forest Service is studying thinning as a method for allowing more undergrowth in even-aged stands. To what extent can forage be provided through this technique? How will this alleviate habitat loss due to the harvesting of uneven-aged stands?

Thank you for the opportunity to comment on the Draft Environmental Impact Statement and Draft Regional Plan for Alaska. Please keep the Federation informed of the progress of the planning process and send us a copy of the final plan.

Sincerely,

Tom Lustig

Thomas D. Lustig, Counsel
Stephen Pattison
Resources Conservation Department

cc: Warren Olsen, Alaska Sportsmen's Council
Thomas Scarborough,
Charles Griffith, NWF Reg'l Exec.
H. Clifton Eames, NWF Natural Resources Clinic (Anchorage)
Tom Robinson, Alaskan Rep., The Wilderness Society

Regional Plan addresses this issue. Since the Regional Plan is the forum through which the public becomes informed as to how the resources are managed in the Alaska Region, this information should be available for comment. By providing perches for raptors and cavities for cavity dwellers, snags play an important role in the forest ecosystem. The public should be made aware of the efforts the U.S. Forest Service is taking to provide snags. The Federation urges the planning team to include a section on snag management in the final plan.

Mineral and Energy Development

It is clear in the Draft Regional Plan that mineral and energy development is expected to increase in Alaska. The exploration and development of mineral and energy sources should not proceed at the unwarranted expense of fish and wildlife habitat or drastic changes in water consumption and quality. Of all the resources to exploit, the development of mineral and energy deposits is perhaps the most incompatible. With the current drive to open up an increasing amount of our public lands for mineral and energy development, the potential exists that the value of other resources will not be considered equally. Mineral development should not become the dominant use on Forest Service lands in Alaska.

The Regional Plan should require a regional environmental assessment to determine the impacts of increased mineral and energy development. The assessment should include a discussion on how the adverse impacts will be mitigated. By going through this process, the public would be better informed as to the environmental impacts associated with this type of development.

Miscellaneous Concerns

The Regional Plan or DEIS should include a table or chart naming all the endangered and threatened plant and animal species which occur within the national forests of Alaska. This would make it easier to evaluate how the proposed actions would affect these species.

For the tables in which regional outputs and the individual Forest's share of outputs are listed, a column should be provided for the outputs of the current year. This would provide a benchmark with which to compare the proposed future outputs. How can someone fully understand the significance of future outputs if they are not informed as to what the current outputs are?

Similarly, these tables should categorize the mileage of roads to be built through the planning period. A breakdown should be given according to the amount of arterial, collector,

Commercial Fisherman's Cooperative Association

429 Dock Street, Ketchikan, Alaska 99901 (907) 225-4123
November 6, 1981

John Sandor
USDA Forest Service
PO Box 1628
Juneau, AK 99802

RE: Draft Regional Plan and Draft EIS -- Comments

The Draft Regional Plan (DRP) does not meet its stated objectives and supercedes a much more thorough and acceptable document, the Southeast Area Guide (AG). There is no justification for not including the AG fisheries policies and protection prescriptions, in total, in the RP. In fact, the AG should form the basis for the Regional Plan, and should be refined, rather than being stripped of particulars.

The National Forest Management Act (NFMA) specifically requires that RP's "issue guidelines for resolving the major public issue(s)" identified in the region. Fisheries protection was identified as such many years ago, and guidelines for resolving the issue were developed for the AG, even though it predates the NFMA. The AG represents a quality planning effort by the USFS, and demonstrates that at times Region 10 leads the way on planning. To discard that effort makes no sense from a fiscal, planning, or public relations perspective.

Much work and participation by fishermen and fisheries biologists went into the AG. During that effort, fishermen were assured that these specific guidelines would protect the fisheries from logging impacts. Many compromises were made in formulating these policies -- e.g., no mandatory stream side buffer strips. Many long term impacts were not addressed, such as instream nutrient deprivation during regrowth and the effects on fisheries of changes in the hydrological regime. There is also considerable controversy over the effectiveness of the Forest Service's implementation and enforcement of AG policies. Fishermen will understandably resist seeing those specific guidelines disappear, with only promises of further planning and vague generalities to take their place.

Indicative of the change from the Area Guide to the DRP is the rephrasing:

AG "Fishery resources are to be considered no more or no less important than the other renewable resources" to DRP "Give fish habitat management needs equal consideration with other resources in all Forest Service programs." These two statements are not equivalent. "Equal consideration" does not yield "protection as an equal" as implicit in the AG's formulation and specific guidelines. The AG says that fish are as important as timber and provides specific guidelines to protect fisheries habitat while logging. The DRP says the USFS will consider fish habitat while logging, yet provides no guidelines as to how this is to be accomplished. Simply referring these issues to "Forest Planning will lead to repeating the agonizing decision making of the AG process on every forest plan."

Clearly this is contradictory to what Congress intended in requiring Regional Plans. In a logical planning process, the RP provides specific guidelines for addressing major public concerns, which the Forest Plans implement in a manner specific to the forest in question. The guidelines in the Area Guide were specifically developed for all of Southeast Alaska, and certainly are not too specific for areawide application.

AG policies are of critical importance to the fisheries, and all need to be incorporated into the RP. For example, specific AG policies regulating the following activities were left out of the DRP:

- timber harvest in Fisheries Habitat Management Units
- water quality maintenance during road construction
- activities in braided stream channels
- logging on steep slopes
- activities in tidal meadows and estuaries
- tractor logging
- applications of water quality monitoring data
- the monitoring of organic accumulation and leachates at log dump sites
- rock pit operations
- contract requirements to insure that activities in FHMU's are carried out in accordance with management plans and remedies if they are not and damage occurs.

There are many other which will undoubtedly be pointed out by the Alaska Department of Fish and Game (ADF&G) and others.

Another change from the AG to the DRP is that agencies charged with protection and conservation of the fisheries resource are denoted from "partners" in the planning process to entities with whom the Forest Service merely "coordinate" -- i.e. notified of its intentions and solicits their comments. Again, this change does not "simplify" or "clarify" the Area Guide policy, it implements a fundamental change. There is a distressing parallel between diminishment of the fisheries agencies' role and the relegation of the fisheries resource from "as important as timber" status to receiving "equal consideration" with timber.

Elimination of almost all specific guidelines for fisheries protections cannot be classified as an insignificant action (else why eliminate them) that does not require an EIS. We certainly disagree with the DEIS on that point. Either the

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specific Area Guide policies should be included or a full scale EIS should be prepared that demonstrates how Forest Planning will achieve the same results.

The DRP also ignores the deer/clearcutting controversy, merely stating that the USFS is fully coordinating with ADF&G on the matter, while making vague, unsubstantiated references to managing regrowth for deer habitat "improvement". This issue is certainly one of public importance and the evidence is that there is a basic conflict. One can draw parallels between USFS refusal to listen to their own researchers on the issue and their insistence that there are no long term impacts of logging on fisheries. The USFS appears willing to accept greatly reduced deer populations through elimination of 70% of the prime habitat. How large a reduction of the salmon populations (and our paychecks) would be acceptable. What overwhelming evidence is necessary to force the decision makers in the agency to address the conflict between fish and wildlife resources and large-scale clearcut logging in prime habitat areas? Avoidance of the deer/clearcutting issue alone makes this DRP demonstrably insufficient.

Finally the DRP does not address the issue of allowable cut levels. The assumption is made that ANILCA mandates an allowable cut level of 450 mmbf. Yet careful reading shows that the Act sets a goal, and requires the USFS to report to Congress on many things. If that level is not needed to support timber industry jobs, or if the level is too high and causes significant damage to the fisheries or wildlife, the USFS is to report to Congress. The source of the figure is of course TLMP, which is supposed to meet Area Guide standards. If AG standards cannot be met while meeting the timber production goal, or if the TLMP timber estimates are wrong, then the Congress and the public have been misinformed, and the USFS should address the timber harvest goal in the planning process.

SUMMARY

Our primary concern is fisheries protection, but as explained in the text, the agencies' treatment of the deer/clearcutting controversy reflects its attitude to fish and wildlife in general and bears directly on treatment of the fisheries resource.

There are then at least three major areas where the DRP must be changed if the RP is to be adequate:

- Area Guide policies on fish and wildlife must be included in total in the RP
- the deer/clearcutting issue must be addressed and guidelines for resolving it developed
- the allowable cut level that is consistent with these guidelines must be identified.

Sincerely,
Paul Peyton
Manager

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November 3, 1981

Mr. John Sandor
November 3, 1981
Page Two

Mr. John A. Sandor
Regional Forester
U.S. Forest Service
Federal Office Building
P.O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandor,

I have read the Draft Environmental Impact Statement for the Alaska Regional Plan. In general, I agree with the preferred alternatives except as noted below. I offer the following comments on the Draft Environmental Impact Statement, numbered in the same order as the alternatives:

1. Appropriate Systems of Silviculture

I believe it unwise to designate even-aged management as the prescribed silviculture system, with exceptions for certain conditions. While clearcutting has obvious economic advantages, the configuration, climate, and location of the Tongass National Forest are important factors. I consider the resources of scenic beauty, wildlife, water quality, and fisheries to be of equal importance with timber harvest.

The silviculture system for each harvest area should be selected after a careful study of the resources in that area. Even-aged and uneven-aged management should have equal status with no biased preference for one or the other. In theory, Alternative D could accomplish this result, however, with even-aged management as the prescribed silviculture system, I believe that inadequate consideration will be given to alternative harvest methods.

I question the first paragraph on Pg. 50 regarding the depletion of soil nutrients caused by harvesting logs. It seems logical that a finite portion of available nutrients would be permanently removed with each harvest. While a relatively small amount for one harvest, the cumulative total for several harvest cycles would be quite large. It is doubtful if the natural restoration of available nutrients could keep pace with this rate of nutrient removal.

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Mr. John Sandor
November 3, 1981
Page Three

of four billion five hundred million board feet per decade is too great an amount for the remaining available timber producing areas of the Tongass. I sense that throughout the Plan the Forest Service is somewhat lowering the protection standards for other resources to increase timber harvest. Including utility log volume in sale quantity calculations would mitigate to some extent the consequences of the legislated production quota.

I believe that Alternative C should be the preferred alternative for utilization standards.

7. Biological Growth Potential for Determining Capability of Land for Timber Production

The harvesting of National Forest lands of growth potential of less than 20 cubic feet per acre per year for firewood is permitted. However, there are no criteria established for the method of harvest and the size and shape of any created openings.

8. Unit of Measure for Expressing Mean Annual Increment

No Comment.

9. Transportation and Utility Corridors

In general, transportation corridors subtract land areas for timber production and other resource use. The Forest Service should construct only the minimum amount of roads needed for access to the various resources and take no initiative in connecting highways. Water and air transport normally have less effect on forest resources and should be used wherever feasible.

10. Air Quality

No Comment.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement.

Sincerely,

Adrian Post
Mr. Adrian Post
243 Van Cott Avenue
Farmingdale, NY 11735

2. Maximum Size of Created Openings

The maximum size limit for created openings should be a fixed acreage without exceptions. The provision for areas harvested as a result of natural catastrophic conditions should be retained.

The summary of results of larger clearcuts at the bottom of Page 57, does not adequately discuss the adverse effects on other resources. There does not appear to be any justification listed, other than economic, for exceeding the 100 acre maximum.

If Alternative C is incorporated in the Alaska Regional Plan, there should be a 350 acre maximum (with public review) to the size of areas that can be accepted from the 100 acre maximum.

3. Dispersal and Size Variation of Tree Openings Created by Even-aged Management

Alternative B is a definite improvement over existing policy. My only comment is under Section G.(2) on Pg. 16 Relationship to Other Openings. In the phrase, "Areas adjacent or close to created openings should not be scheduled for entry..." the word close is vague. Some criteria should be established for separation of concurrent clearcut areas.

4. State of Vegetation That Will Be Reached Before a Cutover Is No Longer Considered an Opening

Alternative C appears to be written to favor timber harvesting rather than utilization of the various forest resources. It seems logical that scenic appearance, wildlife habitat, and silviculture have distinctly different requirements for vegetative cover required before no longer being considered an opening. These requirements can, and should, be established for each resource. I believe that Alternative B sets reasonable standards for regenerated cover and should be the preferred alternative.

5. Management Intensity

No Comment.

6. Utilization Standards

In general the utilization standards presented are reasonable and appropriate for the Tongass National Forest. Although not a consideration of the Regional Plan, I believe the harvesting

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Dear Mr. Sandor:

November 5, 1981

The following are my comments, questions, and management ideas which came to mind through reading the Draft Alaska Regional Plan and its Environmental Impact Statement.

First, I do not understand why you conclude that the resolution of conflicts between logging old growth timber and wildlife habitat is not within the scope of the Regional Plan. In order to make plans on how the Chugach and Tongass National Forests should be managed, such key points of controversy would seem one of the main focuses of the Regional Plan. This issue should be resolved prior to major timber harvests.

Secondly, what certain specific Area Guide policies have been referred to the Forest planning process for review and comment? If there is actual public ownership of the guide then the public should decide whether or not specific guide policies should be included in the Regional Plan. This sector of the public would like to see, and in fact demands that all Area Guide standards and guidelines be incorporated into the Regional Plan.

In the plan it states that to meet the annual volume of 450 million board feet, 14-20,000 acres must be cut each year. In sixty years about 1,000,000 acres of old growth timber will be cut, or a completely commercial forested area the size of Admiralty Island. Spread out through the Tongass, this will be a dramatic change in the integrity of the forest region. Also it is stated that 250-300 miles of access road will be constructed annually "for the next several years". The logging road network on Prince of Wales Island is already 330 miles. The construction of new logging roads throughout more of our "roadless" archipelago, totalling more miles than that of the Alaskan oil pipeline will also significantly change the character and wilderness quality of southeast Alaska.

Please do not assume that we in the smaller communities of southeast have any interest whatsoever in having roads connecting us with other small communities. One must look very hard to find communities in the U.S. which are isolated in a roadless state.

Any road, whether it connects two towns or is simply a logging spur road provides greater access to the land and thus, as stated in the Plan, "creating problems of increased man-caused pressure on wildlife. This is supported in the Plan whereby road access helped bring about a serious decline in the Yakutat moose population.

Section 705, in the Alaska Lands Act (ANILCA) mandates the Forest Service to maintain a timber supply of 4.5 billion board feet per decade. The Act also mandates the Forest Service to manage wilderness lands and preserve them in their natural state. The Forest Service is also mandated to provide for long-range and adequate supplies of water, recreation, forage,

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timber and wildlife, in the Forest and Rangeland Renewable Resources Planning Act of 1974.

Since nearly all the finished forest products utilized in Alaska are imported, and since the vast majority of high volume old-growth timber on the rest of the National Forests of this country has historically been committed to ensure adequate supplies of timber, and since the conflict between harvesting old growth from the Tongass and its long range effects on wildlife habitat is in the need of being resolved, the emphasis of management, at this time, should be on the preservation of this unique National Forest system. Indicators presently point to the very real possibility of permanent reductions of Sitka blacktailed deer. Mounting forest-forest relationships studies, marten studies related primarily to effects of habitat change, studies on Vancouver Canada geese, small mammal-forest relationships, and studies of the effects of clearcut logging on other wildlife habitats need to be completed to ensure that adequate supplies of wildlife and habitat are maintained.

I also feel it can be successfully argued that logging high volume old growth on LUD III and LUD IV lands can, at current levels, threaten the ability of the Forest Service to ensure preservation of the current quality of wildlife and the wilderness character on LUD I and LUD II lands. For example: the Tlingits of the village of Hoonah may temporarily relieve some of their economic depression through timber harvest of their island, but in the decades to come, as more and more of Chichagof Island is logged, the Tlingits and other residents of the island will increase their dependence for deer on protected Admiralty Island, as more and more habitat for deer is lost on Chichagof. This is supported in the Forest Service Admiralty Island Interim Guidelines, which states, "As logging on private and public lands in southeast Alaska increases, hunting pressure on Admiralty Island is expected to increase."

Perhaps not in 10 years, perhaps not even in 20 years, but certainly within our lifetimes, the mandate to log 4.5 billion board feet per decade will put so much pressure on lands set aside to meet the needs of recreation, watershed, forage, hunting, trapping and wildlife preservation that the Forest Service will have to severely restrict traditional and recreational use of the forest.

The Regional Plan states "Section 706(b) of the Alaska Lands Act requires the Forest Service to review and report to Congress every 2 years on the status of the Tongass. The impact of wilderness designations on the timber, fishing and tourism industry is to be included in the reports to Congress." This is worded incorrectly. It should read "the impact of timber harvest on wilderness designations, fishing and tourism". Tourism and fishing are assured a healthy future through wilderness designations. Harvesting timber could ¹⁵⁶ adversely impact the other three concerns.

50,000bf/acre or greater in one color; another color would indicate CFL with a standing volume of 30-50,000bf/acre; a third color would present acreage with an inventory volume per acre of 20-30,000 board feet; and a fourth color would display CFL in the 8-20,000bf/acre class. From this map a person could determine what areas of the Tongass have the most volume per acre and also decide whether a sufficient portion of various commercial forest stands are protected for wildlife.

Another map, or series of maps showing existing cutting units and proposed cutting units along with existing and proposed roads for all of the Tongass would be extremely helpful to the average public reviewer of EIS's. The maps section of the EIS for the ALP 1981-86 Timber Sale Operating Plan is a good example of good Forest Service work. Also maps displaying areas of high use by wildlife could also be utilized in forming a clear a true picture of the current situation in the Tongass as all concerned and responsible folks living here need in order to make management decisions for the future. Thank-you for reading my letter and here's to the future.

Sincerely,
Christopher Carrell
Christopher Carrell
P.O. Box 77
Pelican, Alaska
99832

Section 706 also provides an opportunity for the Forest Service, and the public, to propose changes in the mandated supply of timber to industry, particularly if the present harvest level is too high for the Forest Service to adequately carry out its other mandate of multiple use. This is not made clear in the Draft Regional Plan, and should be.

If the Forest Service is concerned about the economic and social stability of Alaskan residents, it should be pointed out that the two non-Alaskan owned timber companies, who were recently found guilty in a U.S. District Court of monopolistic practices, are not.

Perhaps my logic of economics is backwards (something is), but it would seem more jobs would be created if logs harvested on the Tongass were also milled and sold in Alaska, rather than exported in the round, or in cants to Japan.

The natural advantage these timber companies have over small business ventures in the forest products industry has lowered and limited work force potential to degrees not explored in the Regional Plan. Along with mentioning numbers of jobs and dollars generated by these timber companies, the Forest Service should study alternatives, such as the 80MMBF set-aside timber sale program for small businesses, which might increase the work force, or at least maintain current levels, while lowering the volume yield. Another such alternative is changing the primary manufacture stipulation to require complete manufacturing of Alaskan logs in Alaska.

In order to decide whether sufficient habitat has been set aside for protection the Forest Service must supply more specific information concerning the standing volume per acre on each of its LUD areas. How many board feet are represented on LUD lands I, II, III, IV?

According to the Department of Fish and Game, the higher volume old growth timber stands (80,000 board feet per acre and above) relieve the most deer use during winter. Also, "an analysis of past timber harvest data suggests that the annual inventory volume harvested between 1956 and 79 has averaged close to 50,000 board feet per acre. Less than 2% of commercial forested lands in the Tongass are classified as 80,000bf/acre. The Forest Service should heed the intensive research findings of the game department and permanently retain all remaining acres which have a standing volume of 50,000bf/acre or higher. All remaining high volume old growth should be cut only in proportion to its present occurrence for at least the next ten years.

Finally, in order to respond intelligently, the Forest Service should provide maps similar to those color coded TMAP LUD maps which the F.S. issued and which have proven most helpful to the layperson whose comments you seek.

One map in particular should show all CFL with a standing volume of ¹⁵⁶

November 2, 1981

John Sander
Regional Forester
U.S. Forest Service
Box 1622
Juneau, Alaska 99802

M.M. Hillstrand
2100 Lake Otis Parkway
Anchorage, Alaska 99504

Dear Mr. Sander,

I am responding to the Forest Service's Draft of the Alaska Regional Plan and also the state Draft Environmental Impact Statement which was issued in August 1981.

I just had the opportunity to fly through Southeast Alaska in a small float plane. This trip allowed time for sight-seeing through our beautiful inland waterways and observe the changes that industrial logging has incurred to this area.

You may be aware that the initial stock of seedling acres of land barren of its trees brings to mind the bonnet out landscapes often viewed in good old late night war movies. It stamed, from 1300 feet altitude almost a tongue-in-cheek joke to view the scenic corridor along the coast which presents a pleasant facade to those individuals traveling the area by boat.

You are correct to assume this as bringing initially emotional response. In fact, it is only magnified by my observation of an area in Southeast Alaska called Jakalof Bay or Kachemak Bay. I sailed through this area ten years ago when they had just begun logging there. This last summer, the areas which were clear cut ten years ago remained unchanged, and barren except for the "Devils Club" plants.

As I reviewed the Regional Plan from the Forest Service, several points came to mind that I would like to present to you for consideration as input to your future harvest plans for the area. I realize some of these will incur the cost of the already state subsidized industry. I have also deleted the detailed scientific and economic reasoning, as it is not the scene of this brief letter.

Please consider conclusions:

1) Wilderness and recreation, if not an official wilderness, the preservation of scenic and cultural landscapes within 10 miles of the logging roadways.

2) Guidelines for road building, with specific attention to road layout, logging, riparian zone habitats, as well as any specific wildlife or forest.

3) Restoration of areas used for roads, landings, and skid trails, when a forest, to remove structures, debris, and/or any other human relics left from the harvest of timber.

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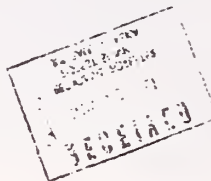
- 4) guidelines for evaluation of the annual allowable number of board feet the area can sustain using a recent inventory of timber, as well as changes in the fish and game habitats and allow for adjustments in the existing 450 million board foot per year harvest quota in accordance with these variations.
- 5) elimination of riparian habitat.
- 6) riparian lands, or lands from areas not able to grow western white pine annually, shall be included in the riparian habitat.
- 7) a riparian area not to exceed two years, to eliminate any possible forest management of riparian areas within Alaskan lands.
- 8) a program of replanting the riparian areas within six months of harvest. The cost of this carried by the harvesting company.

I greatly appreciate your consideration of this request. You have already initiated action in a number of cases or have other requests that could be more beneficial and expansion in protecting this riparian resource for the State of Alaska. Thank you for your attention to this matter.

Respectfully,

M. Hillstrand

Mrs. Margaret "Ma" Hillstrand BSN RN



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Southeast Alaska is ideally suited to studying the environmental limits of many plants including commercially important trees, since so many reach their northern limits in the region. Research natural areas representing the northern distribution of western redcedar, for example would be invaluable resources for studying the ecology of that tree. Some geological types, particularly calcareous (limestones, marble) are particularly in need of representation in the research natural area system since these are often the most productive and therefore the most deserving of study in an era of increased needs for accelerated forest outputs.

Throughout the Regional Plan much emphasis has been placed on the value of precommercial thinning to wildlife habitat. I have been unable to find any studies that have shown the response of wildlife populations to precommercial thinning in the cool rainy environments that characterize the Alaska Region. The Pacific Northwest Range and Experiment Station intends to initiate studies on the effect of thinning on wildlife forage but until some results are available it would seem premature to suppose that expenditures on precommercial thinning for wildlife habitat improvement will necessarily be justified in terms of wildlife population response.

The environment in southeast Alaska is unique in North America in many respects. The cool wet year around temperatures, high rainfall, and wide range in geological substrates lead to forest resource responses to management different from that observed in the continental United States.

As the Forest Service continues to move ahead towards increased management intensity the special problems encountered in applying concepts developed in the lower 48 to Alaska should be considered in developing comprehensive long-term plans for the region so that the wide range of commodity and amenity output demands from the Alaska Region can be assuredly met.

Thank you for the opportunity to comment on your proposed plan.

Sincerely,

Paul Alaback

Paul Alaback
Forest Research Laboratory, OSU
Corvallis, OR 97331

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November 6, 1981

John Sander

Regional Forester

USDA Forest Service Alaska Region

P O Box 1628

Juneau, Ak 99802

Dear Mr. Sander:

I would like to submit the following comments on the Draft Regional Plan.

The inclusion of a framework for identifying Research Natural Areas is commendable, and represents a significant improvement in identifying long-term research needs in the region over that used in the past. The key to such programs is to identify the best examples of each plant community, soil type, or microenvironment that occurs within a region so that research can be always conducted on sites appropriate to study objectives. In southeast and south central Alaska however, no program of ecological research and community classification has been undertaken. The proposed scheme, in light of these deficiencies must be carefully implemented since the broad categories given do not necessarily identify all important plant community variants or microenvironments of scientific interest because so little is known of them.

The inclusion of soil types such as those developed in the soil-ecosystem classification should be included as criteria in many of the identified plant communities. Most crucial over this planning period should be designating research natural areas having the various subtypes of the FI soil ecosystem (Fit, Fid, Fic, Fig etc.) in the Sitka spruce - western hemlock forest type. Examples of each of the volume classes of timber, and the major physiographic types (such as major valley bottom, alluvial) should also be considered.

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November 6, 1981

John Sander

Regional Forester

USDA Forest Service Alaska Region

P O Box 1628

Juneau, AK 99802

Dear Mr. Sander:

The following constitutes my comments on the Alaska Regional Plan. My comments will roughly follow the order in which they are presented in the DEIS.

Old-Growth

The most significant impact of the proposed management plan for the Alaska Region is in its conversion of old-growth forest to managed second-growth forests not to exceed 125 years in age. On p 4 of the DEIS the old-growth issue is discussed. The Forest Service states that "the resolution of this issue is not within the scope of this plan". Yet unless the Region defers cutting in high volume old-growth forests it will in effect be making some resolution of the issue. In response to the Alaska Department of Fish and Game request for deferring cutting in high volume old-growth of special significance to wildlife, the Alaska Region stated in a letter dated 18 May 1980 that high volume old-growth is being protected in many different land-use categories. According to the figures given 32,510 acres of high volume old-growth will be protected in some way out of a possible of about 110,000 acres (2% of 5.5 million acres CFL). Given the dependency of many key wildlife species on high volume old-growth from data presented by the Alaska Department of Fish and Game report, protecting less than 30% of the remaining high-volume old-growth may be wholly inadequate in mitigating losses in wildlife resources. How are these protected old-growth acres distributed with respect to forest type, elevation, access, and viable wildlife populations? Clearly this site specific information is

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necessary in order to evaluate the effectiveness of the proposed program in meeting stated wildlife management goals(page 16 : "wildlife and fisheries needs over time must be considered in order to maintain the habitat potential needed to insure desired population levels"). The data presented thus far suggests population levels of many key wildlife species will be impacted by harvests high quality old-growth stands. Thus under the proposed Regional Plan policies for wildlife (" give wildlife habitat management needs equal consideration with other resources in all Forest Service programs" appendix 1 page 19) all high volume old-growth forest should be deferred from harvest until data are made available suggesting how wildlife can sustain their present populations without harvesting this old-growth. This change must be incorporated into the final plan if the Forest Service is to meet its own management objectives.

Timber Management

On page 15 the Forest Service states " distribution of openings over time will conform to a total compartment multi-entry layout plan and be scheduled taking into consideration the assumptions used in the analytical allocation model". What is the analytical allocation model? What are its assumptions? What change in policy is represented by this addition?

On page 17 the Forest Service states that " apportion" of marginal or low-volume timber must be included in sale layout because yield calculations from the TMAP assume 10% harvest of marginal stands. Why? Is your goal to maintain steady state even flow harvest? If so then your distribution of volume classes cut should be representative of the forest land base in general. In the Alaska Department of Fish And Game analyses of cutting records it was revealed(appendix F page 11 of Regional Plan) that between 1956 and 1979 volume harvested averaged 50,000 BF/acre (the upper 2% of commercial forest land volume class distribution). Clearly this policy of continued timber harvest will be more costly and less profitable over time, leading to uneven yield.

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standards would seem necessary if timber management cost effectiveness is to improve.

I hope these comments will prove helpful to the Forest Service in enhancing both the fiscal effectiveness and balance of their resource outputs during this planning period.

Thankyou for the opportunity to comment on the Regional Plan.

Sincerely,

Judy K. Hall
Judy K. Hall
P O Box 181
Philomath, OR 97137

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Economics

On page 19 the Forest Service states as a policy for the Regional Plan " achieve and maintain, where possible the productivity of commercial timber lands at 90% of their potential level of growth". Does investment in timber stand improvement bear a relation to outputs? Is the Forest Service authorized to spend more on timber production improvement than is reflected in increased harvest revenues?

On page 20 the Forest Service states " forest fertilization may be used on soils determined to have insufficient nutrient status to allow the successful establishment of a conifer cover within the time constraints allowed". If a site is so infertile that conifers can not regenerate after harvest what evidence is there that under the cool rainy conditions that lead to heavy leaching of soils in southeast Alaska that fertilizers can raise the productivity of such sites over the rotation in a cost effective manner? Perhaps fertilization should be reserved towards soil types that are known to effectively respond to such treatment.

Page 21 What is meant by " allowable sale quantity" How is it determined?

Page 23 What are " logical harvest units "? Do they need to have marginal timber?

Page 23 Commercial forest land is normally thought of as forest land of sufficient potential productivity to economically warrant expenditures to manage and harvest the wood produced. The costs of management vary widely across the country, the highest being in Alaska due to transportation, labor and other costs. Why does the Alaska Region have to adopt the national standard? The current administration has stated repeatedly that it wishes all agencies to make expenditures more fiscally responsible. The raising of the standard for minimum productivity in commercial forest land would be entirely consistent with this policy. In western Oregon, where forest management expenses are considerably less than those in Alaska industrial land owners rarely manage forests incapable of producing at least 100 cubic feet per acre per year. A re assessment of both national and especially the Alaska Region "

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U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

APPLY TO
ATTN: OR

M/S 443

6 NOV 1981

John A. Sandor, Regional Forester
U. S. Forest Service, USDA
P. O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandor:

We have completed our review of the Draft Alaska Regional Plan (ARP) and the accompanying Draft Environmental Impact Statement (DEIS) on the ARP which your office recently distributed for public and agency review. We believe that the ARP and the DEIS adequately treat the issues addressed. However, we also believe that the scope of the draft ARP is too narrow and consequently the DEIS will require additional information.

Scope of the ARP

The draft ARP and the DEIS identify eight public issues and one management concern that were identified early in the plan development process. However, the ARP and DEIS, do not directly address this entire range of issues. Specifically, some of the issues, such as the conflicts between harvest of old growth timber and wildlife habitat, are excluded from the analysis based on a declarative statement that they are beyond the scope of the plan. Others, such as impacts to fisheries from timber harvest operations and the sustained timber production capabilities of the Alaska forests, were either dealt with indirectly through Southeast Alaska Area Guide revisions or excluded from the plan based on the assumption that they were resolved by the Alaska National Interest Lands Conservation Act of 1980.

We believe that the final ARP will need to be expanded significantly.

1. The draft ARP concludes, at page 10, that no major changes in management direction are necessary with regard to preventing adverse impacts to fisheries from timber harvest. It notes that the National Forest Management Act (NFMA) and the Alaska National Interest Lands Conservation Act (ANILCA) contain standards and guidelines for habitat protection. It also notes that many of the prescriptive policies in the Southeast Alaska Area Guide (Guide, hereafter) have been referred to individual forest planning.

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This approach gives inadequate attention to the potential for conflict between the resource development goals related to timber and minerals and the habitat protection goals of the NFMA, ANILCA, and the Resources Planning Act (RPA). At a minimum, if the Forest Service at the regional level is going to drop the Guide's prescriptive habitat protection requirements, the ARP should provide guidance to the individual forests on how conflicts among these goals should be resolved. Such guidance should cover both procedural and substantive issues. It should spell out the steps to be followed in resolving resource conflicts and outline the sub-issues which the forest planners should address in analyzing the conflicts.

2. The draft ARP notes the conflict between harvest of old growth timber and preservation of important wildlife habitat but, after some discussion, states that resolution of the issue is outside of the scope of the ARP. Given that the issue affects both forests in the Alaska Region and that it appears to constitute a serious conflict between the habitat protection standards of ANILCA and the timber harvest targets of ANILCA, we believe that it would be best to resolve it within the context of the ARP. In this way, the EIS could analyze the environmental consequences of meeting the timber harvest target and the environmental and economic consequences of meeting the habitat protection standards and not meeting the timber harvest target (assuming that the two goals are mutually exclusive). The EIS could also provide the forum for examining whether there are any practicable means of attaining both sets of objectives. This would tie directly to the issue of how much timber production can be sustained on national forest lands, which does not appear to be as completely resolved as the draft ARP would have us believe (see page 12).

3. The ARP suggests that no new policy or guidance is necessary on energy and minerals development in Alaska's national forests. The ANILCA withdrawals which provide for the development of the Quartz Hill molybdenum deposit and the Greens Creek Project on Adakaitly Island do not resolve the environmental conflicts per se. The ARP should provide substantive guidance regarding how the individual forests should manage and monitor these minerals development projects in order to minimize their adverse environmental consequences (the existing plan provisions are largely procedural).

4. Neither the ARP or the DEIS mention Alaska's Federally approved Coastal Zone Management Program. Federal agencies are required to comply with such programs to the maximum extent practicable. We understand that you recently entered into a Memorandum of Understanding with the Division of Policy Development and Planning in the Alaska Governor's Office that defines the procedures which the Forest Service will follow in meeting this statutory requirement. We believe that it would be appropriate for the final ARP to provide guidance to the individual forests on how they should go about complying with Alaska's Coastal Management Program (CMP). The Alaska CMP has elements specifically directed to minimizing the adverse consequences of silvicultural practices on coastal resources and it has habitat protection standards which are germane to forest planning. The final ARP should instruct the individual forests on how these standards and CMP elements should be integrated into the individual forest and land management unit plans.

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United States Department of the Interior

OFFICE OF THE SECRETARY

P. O. Box 120
Anchorage, Alaska 99510

November 5, 1981

Mr. John A. Sandoz
Regional Forester
Attention: Regional Plan
U. S. Forest Service
P. O. Box 1628
Juneau, Alaska 99802

Dear Mr. Sandoz:

We have reviewed the Draft Alaska Regional Plan and the Draft Environmental Impact Statement (DEIS) on the Regional Plan and offer the following comments for your consideration:

Combined General Comments (DEIS & ARP):

We appreciate the prodigious effort these documents represent and anticipate the final statements will prove invaluable for long term resource assessment and planning.

Silvicultural management systems, the preferred alternative, manifests the greater flexibility for protecting and utilizing timber and associated resources. However, we believe that increased emphasis should be placed on uneven aged management utilizing selective harvest methods. Increased application of this technique will provide more and higher quality habitat for future use by all commercial, recreational, subsistence, and aesthetic fish and wildlife assets than would even aged management. Ultimately, this change would address both timber harvest and environmental requirements in a more satisfactory manner.

Specific Comments (DEIS):

Page 3, last paragraph. We are convinced that Regional Plan policies and standards in the National Forest Management Act and the Alaska Lands Act provide for significant habitat protection as stated. However, we believe that "possible adverse impacts to fisheries from timber harvest" cannot be avoided unless a comprehensive enforcement program designed to specifically enforce existing policies is in place and functioning.

Page 4, paragraph 2. We endorse the Alaska Department of Fish and Game position regarding the issue. Moreover, we support the request presented in sentence three of this paragraph.

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Scope of the EIS

The scope of the EIS will need to be expanded to correspond to the expanded scope of the final ARP, as recommended above. The final EIS (FEIS) should examine the environmental consequences of timber harvest on fish and wildlife habitat and possible additions to the ARP for resolving these potential resource use conflicts. It should address whether the ANILCA timber harvest target is attainable without resulting in serious environmental damage to Alaska's coastal resources and fish and wildlife habitat. The EIS could further define appropriate mitigation measures to minimize adverse environmental impacts on these resources.

It should examine alternative substantive policy sets designed to govern minerals development within the national forests. This would allow the development of appropriate final ARP provisions and prevent a situation in which the individual forests were forced to evaluate proposed mining plans in a "policy vacuum."

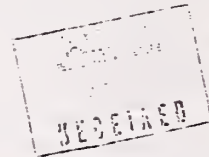
Finally, the EIS should evaluate the environmental consequences of your decision to eliminate many provisions of the Guide and refer those issues to individual forestry planning without guidance on their resolution to the forest planners. Such an approach may result in substantially different approaches to silviculture in the two forests within the Region with substantially different environmental results. Whether this is a desirable result should be examined in the FEIS.

Based upon these concerns we have rated the ARP/DEIS ER-2 (ER: environmental reservations; 2: insufficient information). This rating and the date of our comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions, pursuant to Section 309 of the Clean Air Act, as amended.

We appreciate the opportunity to review this draft plan and DEIS and would be glad to discuss our concerns with you or your staff. In order to arrange such discussions, you should contact either Mr. Daniel Steinhorn, our Team Leader for Energy and EIS Review, at (FTS) 399-1266, or Mr. "Bud" Loisel at (FTS) 399-1096.

Sincerely,

Elizabeth Corby
Elizabeth Corby, Chief
Environmental Evaluation Branch



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Mr. John A. Sandoz
Juneau, Alaska

page 2

Page 11, paragraph 1, sentences 4 & 5. Since Congress has established a series of studies to evaluate effects of the level of timber harvest outlined in this paragraph, it would be appropriate for a description of these studies, the study plans, and the timetable for incorporation of study results into the Tongass Land Management Plan to be included in the final statement.

Page 13, 1. Appropriate Systems of Silviculture, Alternative A, last paragraph. We believe this same level of protection should be included under the preferred alternative. Consequently, we suggest this paragraph be included as part of the preferred alternative (Alternative D) in the final EIS.

Page 16, 3. Dispersal and Size Variation of Tree Openings Created by Even Aged Management, (4) Wildlife and Fisheries Habitat. This paragraph does not adequately provide for protection of fish and wildlife as it presently stands. Accordingly, we suggest the comment under this item be modified to read: Wildlife and fisheries needs over time must be considered and sale layout will include provisions for the protection and enhancement of fish and wildlife resources and habitat.

Page 23, 6. Utilization Standards, Alternative B, paragraph 1. This statement does not embrace the environmental protection qualification set forth under Alternative A (Area Guide) on the same page. We believe that environmental objectives would be better served if this paragraph were changed to read: Where compatible with environmental protection objectives, plan sale offerings to encourage competitive bidding in a range of sizes and species that provide opportunities for small business.

Page 25, 9. Transportation and Utility Corridors, Alternative A, paragraph 1, sentence 2. We believe the specificity presented in this sentence, relative to potential adverse environmental impacts, would be helpful to transportation planners when designing projects which must recognize other resource values. Therefore, we suggest that this statement be added to the end of paragraph one for Alternative B, on page 25.

Page 44, Estuaries and Tidal Meadows, paragraph 8. Generally this appears to be true. However, there are some exceptions. In a number of the areas where log rafting and dumping have extensively occurred certain species do not appear to be at levels of abundance which these systems might otherwise support. Therefore, we suggest the statement under this heading be changed to read: Overall, estuarine resources, in those environments removed from communities, appear to be in a healthy state.

Page 47, paragraph 2, sentence 5. We concur with this statement. In particular it points out the need to establish a balanced approach to resource management, especially where those resources are finite.

Page 48, a. Even Aged Management, Item (1). This statement appears to be true, although it should be noted that where other resource values are truly considered it is our judgment that clearcutting is not the most accepted or desired method of timber harvest.

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Page 53, paragraph 5, sentences 2, 3, & 4. We are pleased with these statements. Perhaps this concept can be helpful in the resolution of the old-growth, deer habitat issue.

Specific Comments (ORP):

Page 3, 2. Regional Planning, Item b. The Sitka blacktailed deer, old-growth issue appears to pass this relevancy test. As a result, it seems appropriate that this issue be resolved at the Regional Plan/EIS level. We suggest this issue be further addressed in the final RP.

Page 10, paragraph 3, sentence 1. Our comments relating to this statement are the same as those under specific comments for the DEIS, page 3, last paragraph.

Page 10, paragraph 5. Our comments concerning this paragraph are essentially the same as those presented under specific comments for DEIS, page 4, paragraph 2.

Page 13, paragraph 7. We suggest you further address how you plan to resolve the concerns expressed in this paragraph.

Page 14, Item 3, last paragraph. Our comments relative to this paragraph are essentially the same as those set forth under page 3, 2. Regional Planning, Item b.

Page 29, paragraph 3. For the most part we concur with the conclusions derived in this paragraph. Preferably, however, we believe timber harvest should be directly tied to fish and wildlife habitat maintenance requirements.

Page 32, Item 2, sentence 1. As mentioned before, a balanced approach to resource management should be employed where those resources are finite. Accordingly, increased commodity use could be tied to fish and wildlife requirements so that stability or balance can be maintained.

Page 34, paragraph 3, sentence 4. We agree on this point and will work with you in addressing these needs.

Page 49, Item 2. Scenery management is not required because of increased environmental sensitivity as this statement implies. Rather, it is necessary due to timber harvest activities occurring on the principal routes travelers frequent. Item 2 should be changed to acknowledge this fact.

Page 80, Item 6, sentences 1 & 2. It should also be noted here that some activities which are destructive to habitat may remain so if properly applied.

Pages 83 and 84, Research Needs. The ongoing research and research needs outlined in this section stand to significantly benefit forest planning consistent with fish and wildlife information needs. Additional effort is needed concerning the responses of fish and wildlife to various forms of timber harvest. In this regard, we suggest the Forest Service undertake a comprehensive, controlled, before, during, and after logging study of an area that is presently unlogged. Perhaps this research need could be included as item g in the final RP.

Page 92, Fish, Item 5., and Wildlife, Item 6. Conflict resolution research goals are necessary but so are impact delineation research goals. Various fish and wildlife species need to have impact mechanisms delineated so that the degree of application to conflict resolution situations can be defined.

Page 117, Item 5a., last sentence. The area of special consideration should not be limited to 100 feet on either side of the stream. In some instances it is necessary to insure the stability of stream banks to protect fish habitat. In order to accomplish this, windfirm buffer strips could feasibly extend beyond these special consideration limits. Consequently, the 100 foot limit would be inadequate.

Page 123, Estuaries and Tidal Meadows. Perhaps another item could be added to these standards and guidelines. It seems appropriate for the Forest Service to: "Recognize that upland forest harvest activities interface with estuarine and estuarine resources."

Thank you for the opportunity to provide comments on these draft documents.

Sincerely,


Regional Environmental Officer



STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

JAY S. HAMMOND, GOVERNOR

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ANCHORAGE, ALASKA 99502

344-0541

November 5, 1981

John A. Sandor
Regional Forester
ATTENTION: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, AK 99802

Re: Draft Alaska Regional Plan and Draft EIS

Dear Mr. Sandor:

As coordinator of the newly established Nongame Wildlife Program of the Alaska Department of Fish and Game, I would like to make the following general comments about the Draft Alaska Regional Plan (DARP) and Draft Environmental Impact Statement (DEIS) for Forest Service lands in Alaska.

As you no doubt recognize, nongame wildlife species are important ecologically, economically, and aesthetically, and should be given careful consideration in forest planning. The U.S. Forest Service has been a leader nationwide in recognizing the importance of nongame species and the need for further research and management of these species and their habitats. Studies you have funded on the effects of logging in southeast on songbirds clearly indicates your concern. These studies (in particular, Gibson and MacDonald 1975, Gibson 1976, Noble 1977, and Kessler 1979) indicate the need to consider the habitat requirements of nongame birds in forest management planning. Some other potential problems came to my mind and those of the Nongame staff when reviewing the DEIS and the DARP:

- 1) The requirements of primary and secondary cavity nesters and the value of diseased, insect-infested, and dead trees to these species, is not addressed. Specifically, the policy of removing all trees from an area during logging, whether or not the tree will provide commercial lumber, may need modification. Additionally, the 100-125 year rotation schedule currently planned may not allow development of the sizes and numbers of snags needed to maintain viable populations of cavity-nesting species.

John A. Sandor

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- 2) The forest plan does not recognize the ecological value of insect-eating birds in control of insect pests. Research throughout the country indicates the importance of birds, particularly woodpeckers, in preventing outbreaks of certain forest insects. U.S. Forest Service research indicates that timber management should incorporate habitat management for woodpeckers to take advantage of their roles as insect predators. Further attention to this in the Alaska Regional Plan could be economically as well as ecologically beneficial.
- 3) Several species of birds occur nowhere in Alaska except the riparian forests of southeast Alaska. I did not find any particular reference to this special value of riparian habitats in the forest plan or DEIS. Clearly, further research is needed to determine management guidelines, but there should be some initial attention to the significance of riparian habitat to some nongame species, including bald eagles.
- 4) Current research elsewhere in the U.S. indicates that forest fragmentation may be an important problem affecting a wide variety of birds. The most obvious problem concerns those species which require large expanses of forest for feeding and nesting, in particular hawks and owls. Additionally, there is some evidence that populations of small migrant birds are adversely affected by forest fragmentation, despite their small breeding territory sizes and apparent mobility. Although the forest plan mentions the importance of corridors for wildlife, the reference deals specifically with corridors for terrestrial species, not birds. This problem must be addressed in planning, and further research is needed in Alaska to determine if forest fragmentation is a problem here.
- 5) The value of old growth forest to nongame birds and mammals has not yet been adequately examined in Alaska. In order to meet your management goal of maintaining viable populations of all native wildlife species, further attention must be given to the value of old growth. Many species may depend on old growth forest for reproduction and winter survival. To date, the studies of avian populations have examined only densities of breeding birds. Density of brooding birds may or may not reflect habitat value to the species. Winter may be a more critical period for resident species than the breeding season. Thus, habitat use in winter must also be examined before evaluating the relative importance of various aged stands.
- 6) Basically, I support the indicator species concept, and believe it may allow simplification of management decisions. However, the criteria used for selection of indicator species are critical. Endangered species and politically important species may or may not be true (ecological) indicator species and unless it can be shown that they are, they should not be selected as indicator species. Indicator species should be chosen on the basis of biological factors only. Special consideration for endangered species can also be shown. Indicator species should be chosen

November 5, 1981

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Denver, Colorado 80217
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J. R. Mitchell
Public Lands Coordinator

November 6, 1981

on the basis of biological factors only. The relationship between the indicator species, its habitat, and the other species its needs purportedly reflect, also must be established to some degree before the indicator species management system can work effectively. I hope we can work with your staff in conducting the background and follow-up research necessary to select appropriate indicator species.

- 7) The forest plan does not appear to address the needs of nongame mammals. Several nongame mammals are endemic to certain islands of southeast Alaska and special consideration of their needs may be desirable. Additionally, small mammals may affect forest regeneration, positively or negatively. Attention to their presence, and their responses to various forestry practices may be economically advisable.
- 8) The EIS recognizes the need for further research on the impacts of land use activities on wildlife. We are particularly concerned about the impacts of logging and heavy recreational use on some nongame species including those for which little information is available (e.g. marbled murrelets), those that are sensitive to disturbance (e.g. seabird colonies), and those whose populations depend on discrete areas for some part of their life cycle (e.g. migrating shorebirds).

These problems need to be addressed in order to meet our mutual goal of maintaining viable populations of native wildlife for their ecological, economic and aesthetic values. Our time and money may at times be limited, but we feel strongly about this whole issue and its importance to nongame wildlife. Therefore, I hope we can work together in the future to insure that the needs of nongame wildlife are given adequate consideration in forest planning.

Sincerely,



Paul Arnason
Nongame Wildlife Coordinator
Division of Game

cc: Ron Somerville
Sue Quinlan

Mr. John A. Sandor
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industry has had a high geologic interest in the area, both within and seaward of the two national forests, for many years. Additionally, it has undertaken extensive exploration efforts to find hydrocarbon accumulations in this vicinity.

We are concerned, however, that neither the DEIS nor the DRP fully address these efforts. We are further concerned that neither document adequately recognizes the need for implementing the multiple-use concept for exploration and development of the hydrocarbon potential which may exist in this area.

In the Outer Continental Shelf (OCS) area just seaward of the Tongass National Forest, the U.S. Department of the Interior held an OCS reoffering sale on June 30, 1981, which involved approximately 996,000 acres. Additionally, the Agency offered about 1,195,000 acres of offshore oil and gas leases in the same area during OCS Sale No. 55 which was held on October 21, 1980. None of these leased lands have yet been adequately explored. Tentative plans currently call for exploratory drilling to take place in these areas sometime in 1983. Both the DEIS and the DRP should include appropriate provisions to allow for these needed future exploration activities. Further, in the event the discovery of oil or gas is made, the documents should include appropriate provisions for future development of the resources. It is especially important that the Forest Service recognize in its DEIS and DRP the need to provide access to forest lands to support offshore exploration and development activities. More specifically, in order to plan ahead for the possibility of successful exploration efforts, it would be appropriate for the documents to take into consideration the need for industry to establish a marine tanker terminal upon forest service lands, most probably in the Yakutat Bay area. Also, it is conceivable that a crude oil storage area and a marine tanker terminal may not be located in the same geographic area. Therefore, we recommend that the DEIS and DRP give consideration to the potential need of a pipeline corridor connecting the crude oil storage area and the marine tanker terminal.

Atlantic Richfield Company believes that the petroleum industry has repeatedly demonstrated that oil and gas exploration and production activities are

Mr. John A. Sandor
Regional Forester
U.S.D.A. Forest Service
P.O. Box 1628
Juneau, Alaska 99802

Re: Alaska Regional Plan and
Draft Environmental Impact Statement

Dear Mr. Sandor:

Atlantic Richfield Company appreciates the opportunity to provide comments to the Forest Service on its recently issued Draft Environmental Impact Statement (DEIS) and Draft Regional Plan (DRP) for the Alaska region.

We support multiple-use management of the public lands and believe that such management is in the best interest of the nation. Also, we support effective plans and actions that provide for reasonable protection of the environment, while at the same time, providing for the development of the nation's natural resources. Therefore, we were pleased to note that both the DEIS and DRP mentioned energy and mineral resources. For example, we endorse the statement on Page 6 of the DEIS which states, "There is public concern about the need for development of energy and mineral resources in Alaska...", and the statement on page 45 of the DRP which says, "Oil and gas exploration and development will increase significantly...". The following paragraphs describe our concerns and recommendations regarding energy issues.

As stated on page E-1 of the DRP, the Tongass National Forest includes approximately 20 million acres of land and the Chugach contains about 6 million acres. Each of these national forests, though not contiguous, are adjacent to the Gulf of Alaska shoreline. The Chugach Forest includes the shoreline along the fjords of Prince William Sound in the Northern Gulf and extends southerly along the coastline to Cape Suckling. The Tongass National Forest generally incorporates the panhandle of the State, commencing at the southern shore of Yekuset Bay and extending along the Gulf of Alaska southeasterly to Annett Island. The petroleum

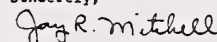
Mr. John A. Sandor
November 6, 1981
Page 3

compatible with other uses of the public land. The Kenai Moose Range in Alaska and the various wildlife ranges along the coast of the Gulf of Mexico are prime examples. Also, the development of the North Slope of Alaska and the construction of the 800 mile Trans-Alaskan pipeline have shown that energy development and nature are truly compatible. Further, petroleum operations should be viewed as temporary in nature since exploration activities involve only minimal disturbance to surrounding land over a fairly short period of time. Even if a commercial discovery is made, the normal producing life of a field, 25 to 30 years, is also a temporary intrusion of the land involving small scale disturbances which can be substantially or entirely reclaimed upon termination of producing operations.

In summary, Atlantic Richfield Company believes that these national forests, and especially their adjoining OCS areas, have excellent potential for the development of oil, gas and mineral resources. Our nation urgently needs domestic additions to our energy and mineral supplies that potentially exist in this area. Further, we believe that energy and mineral resource exploration and development are compatible with other uses of the public lands and that this activity should be viewed as temporary in nature. Therefore, we strongly recommend that the final EIS and RP for these two Alaskan National Forests more adequately address, provide for, and encourage the exploration and appropriate development of the oil, gas and mineral resource potential which may exist in this area including contiguous OCS lands.

Again, we appreciate the opportunity to provide our comments to the Forest Service on this important issue.

Sincerely,



J. R. Mitchell

CRM/drm

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November 13, 1981

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John Sandor, Regional Forester
U. S. Department of Agriculture
Forest Service
P. O. Box 1628
Juneau, Alaska 99802

Re: The Draft Alaska Regional Plan

Dear John:

Alaska Lumber & Pulp (ALP) has had an opportunity to review the Alaska Regional Plan. Its purpose is to disaggregate the goals and the objectives of the RPA program to the forests. (36 C.F.R. Section 219.10(c)). Within the near future, we shall be submitting a detailed list of items which are of concern. In the meantime, we have listed below the major problems which we see with the draft plan:

1. Failure to recognize that Alaska is not subject to Section 6(k) of the National Forest Management Act of 1976 (NFMA). The Alaska Regional Plan is written in accordance with the requirements for regional planning actions set forth in 36 C.F.R. Section 219.10. Under 36 C.F.R. Section 219.10(d), a regional plan must meet the requirements of Section 219.13(h)(1-7). Section 219.13(h)(1) refers back to Section 219.12(b), the so-called "suitable lands provision". Thus, by following the requirements in the regulations for regional planning, the Alaska Regional Plan integrates the suitable land requirements of the regulations with the regulations for management intensity, for biological growth potential for determining capability of land for timber production, and for unit of measure for culmination of mean annual increment.

John Sandor, Regional Forester
November 13, 1981
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By measuring only the incremental change which the Regional Plan makes in the Southeast Area Guides, the Plan retains timber in the status of a residual use, permitted only if it does not conflict with other uses. The discussion of fish, wildlife constraints, and visual concerns, all precede any discussion of timber usage. In short, we do not have a balance of timber with other uses. Instead timber harvesting is allowed to take place where it does not conflict with other resources. * We question whether this is in fact multiple use management.

Zero base planning would show the opportunities and costs of different combinations of multiple use management. The concept of trade-offs recognizes the fact that timber values may be greater than other values in certain cases. Incremental analysis such as in the Regional Plan does not allow us to look at such situations anew but freezes us into past policies effecting timber usage.

Most important of all, zero base planning would allow construction of a plan which begins with recognition that ANILCA mandates a 4.5 MMMBF per decade timber supply to dependent industry. Other resources must be protected. However, Congress contemplated trade offs in their protection sufficient to allow the mandated timber supply to be achieved. There is only so much timber which can be retained while still achieving a timber supply of 4.5 MMMBF per decade. The Regional Plan must recognize this point.

3. Clear Cut Size. The preferred alternative calls for clear cuts no larger than 100 acres except where exceptions are made pursuant to the Section 6 regulations. Alternative B states at page 14:

"Where it is determined exceptions to the size limitations are warranted based on criteria below, the actual size limit will be 350 acres. Review by the Regional Forester is required."

* Any doubt that timber is a residual as opposed to multiple use is seen in the following statement at page 130 of the Plan:

"Harvest scheduling will not include lands that will be retained to meet the needs of other resources unless the condition to be retained is time specific."

John Sandor, Regional Forester
November 13, 1981
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The problem is that Alaska is not subject to the suitable lands requirement of NFMA or the Section 6 regulations by virtue of Section 705(d) of the Alaska National Interest Lands Conservation Act (ANILCA) which provides as follows:

"The provisions of this section shall apply notwithstanding the provisions of 6(k) of the National Forest Management Act of 1976 (90 Stat. 2949)." (emphasis added)

The regulations' requirements for management intensity, for biological growth potential for determining capability of land for timber production, and for the unit of measure for the culmination of mean annual increment should have been adjusted in the Alaska Regional Plan to reflect the fact that the suitable lands requirement does not exist in Alaska. Because the Regional Planning regulations were not adjusted to reflect Alaska's exemption from Section 6(k) of NFMA, the calculation of the annual allowable sale quantity will be substantially below the potential level intended by Congress.

For the foregoing reasons, we believe that the sections dealing with management intensity, biological growth for potential for determining capability of land for timber production, and the unit of measure for culmination of mean annual increment should be adjusted in the final plan to reflect the fact that suitable lands provision does not pertain to Alaska.

2. Zero Base Planning. Alternativa A (the Southeast Area Guides) is the baseline against which the consequences of other alternatives of the plan are measured. Accordingly, the EIS focuses on the incremental changes from the existing management guidelines. The proposals tend to further reduce the timber base. The Regional Plan does not consider the consequences of the Regional Plan in terms of its total impact except where a prior guideline from the Southeast Area Guides was not in place.

ALP would like to see the full biological and economic potential of the land to produce evaluated and displayed to the public without reference to multiple use constraints. This would be the base against which impacts would be measured. The impact of each of the alternatives would be measured against this base. The public then would know the true, total cost of each of the alternatives as opposed to the incremental cost alone.

John Sandor, Regional Forester
November 13, 1981
Page Four

Alternative B is rejected in favor of alternative C which says that the actual size will be determined through an interdisciplinary process.

We do not believe that alternativa B is a meaningful alternativa to alternative C. Simply stating that if an exception to the 100 acre limitation is justified, the clear cut size should be 350 acres is a non sequitur. It has no basis in reason. In order to be presented as an alternative in an EIS, the alternative must be a meaningful one: Alternative B is not a meaningful alternative.

We would propose a new alternative on clear cut size. We propose a maximum clear cut size of 160 acres, subject to the provisions for exception set forth in the Section 6 regulations. 160 acres was that which was used as regional policy prior to the 100 acre clear cut limitation. In Southeast Alaska, a 160 acre size makes more sense than the arbitrarily set 100 acre clear cut limitation for the reasons set forth in the excellent discussion on clear cutting found at pages 49 through 56 of the Draft EIS. It was determined as part of the Leopold-Barrett study for the Champion International sale that 160 acres was a good size for fish and wildlife protection. It is perfectly legitimate for an EIS to set forth as an alternative a proposal which would require a change in the rules to implement.

4. Deer. At page 4 of the EIS, and at pages 10 and 27 of the draft Alaska Regional Plan, reference is made to the November 1980 request of the Alaska Department of Fish and Game (ADF&G) that harvesting not take place on old growth stands in excess of 50 thousand board feet. Attached as Exhibit A to this letter, is a decision memorandum of the Governor dated June 10, 1981 which supersedes any request which may have been made by the ADF&G. As can be seen, the Governor recommends a substantially less dogmatic and prescriptive approach than that taken by ADF&G. We believe that wildlife habitat decisions citing the State's position should be based upon this memorandum rather than the November 1980 position of ADF&G.

The Governor's decision memorandum directs the maintenance of "viable" populations of fish and game. This is in accordance with 36 C.F.R. Section 219.13(b)(8). Previously, ADF&G sought retention of sufficient habitat to allow the survival of all wildlife species in the harshest of winters. The Governor's approach is far less costly and far more realistic.

Because of the fact that research is the key to solving the deer versus clear cutting issue as recognized in the Governor's June 10, 1981 decision memorandum, and because the issue relates to the Tongass National Forest alone, we applaud the decision of the Forest Service not to resolve this issue in the Regional Plan. We suggest that the research needs cited in the Longhurst-Robinette Report should be discussed in greater detail in the Alaska Regional Plan and its EIS. This would help make it clear to the public why this issue is not subject to resolution at this time.

5. Wilderness. We agree with the decision of the Forest Service not to consider changes to the level of wilderness set forth in ANILCA. Indeed, Section 708 of ANILCA excludes the Forest Service from considering wilderness additions until revision of a land management plan for the Tongass is produced in accordance with Section 6 regulations. The Plan and EIS should recognize that Congress attempted to balance wilderness between competing groups and ultimately did so in a compromise agreed to by the Alaska Coalition, the umbrella organization which represented the interests of environmental organizations interested in the Alaska Lands controversy.

6. Timber Harvest Levels. We are aware of the form letter sent out by the Southeast Alaska Conservation Counsel (SEACC) requesting its cohorts to attack the 4.5 MMMBF per decade which Section 705(a) of ANILCA requires be made available to dependant industry. Since this issue concerns the Tongass alone, it should not be considered in the Regional Plan and we agree with the Forest Service's decision in this regard. Furthermore, Congress is to receive reports regarding supply and demand every year pursuant to Section 706(a) of the Act. We believe that Congress is the appropriate place to discuss this issue.

SEACC's attempt to rewrite the agreement made in its behalf by the Alaska Coalition during the Alaska Lands debate is at best a political play, designed for public relations purposes: it can have no substantive meaning. The policy set forth by Congress in Section 705(a) has not been in effect long enough to evaluate. Therefore, it would be entirely inappropriate for the Forest Service at this time to seek any changes to Section 705 of ANILCA.

7. Management Intensity. At page 19, the EIS says that it is the goal of the Forest Service to achieve 90% of the potential level of timber growth. The EIS does not show

requirements, and total costs of preparation, logging, and administration."

This requirement is not sufficiently reflected in the various discussions of resource limitations upon timber.

ALP will be present a list of items detailing specific concerns with the Plan and EIS in a subsequent submission. Thank you very much for the opportunity to comment.

Yours very truly,

James F. Clark
James F. Clark

JFC:sd
Attachment
cc: Mr. J. A. Ryneanson
Mr. Lloyd Jones

how the 90% figure was derived. Why should not the goal be to make the management intensity 100% of the potential?

8. Air Quality. The discussion of air quality at page 28 of the EIS implies that the Forest Service will act to protect air quality. In fact, this should be left to the Alaska Department of Environmental Conservation (ADEC) which should be informed by the Forest Service of any open burning of which it is aware. ADEC presently requires that a permit be obtained for open burning.

9. Potential Fish Streams. At page 117 of the Draft Regional Plan, the Forest Service asserts that it considers potential fish streams as fish habitat to be protected as such. As a practical matter this requires the operator to guess which streams are fish streams at his or her peril.

The Forest Service must undertake the duty of marking in advance those streams which it wants protected. Since any stream could potentially produce fish, the Forest Service statement on this point is not only extremely costly, it threatens the Forest Service's ability to provide a timber supply to dependent industry of 4.5 MMMBF per decade.

10. Aesthetic Resources. The Plan makes continuous reference to the retention of aesthetic resources. For example, guideline Number 4 on page 137 of the Plan directs:

"Inventory and evaluate the visual resources as an integrated part of the forest planning process addressing both the landscape's visual attractiveness and the public's visual expectations."

Attempting to plan based on the public's expectation of what is visually attractive is the exponent of speculations as to taste multiplied by speculations as to taste. In short, it is meaningless - and costly. Again, there is only so much timber that can be retained while still achieving a timber supply of 4.5 MMMBF. That which is retained to make a guess of the public's expectation of visual attractiveness cannot necessarily be retained to protect fish and wildlife.

11. Economics. Regional Plans must meet the requirement of 36 C.F.R. Section 219.13(c) which states:

"Management prescriptions that involve vegetation manipulation of tree cover for any purpose will: be practical in terms of transportation and harvesting

MEMORANDUM

State of Alaska

TO: Jay S. Hammond
Governor

DATE: June 3, 1981

FILE NO:

TELEPHONE NO: 465-4100

FROM: Ronald O. Skoog
Commissioner
Department of Fish and Game

SUBJECT: Decision Memorandum:
Wildlife-Logging
Relationships

1. Problem: For years wildlife and forest managers have agreed that timber management (i.e., cutting) improved habitat for many fish and wildlife species, and on this basis State and Federal fish and wildlife agencies generally have been supportive of U.S. Forest Service timber harvesting programs, including those in Southeastern Alaska. However, research recently conducted on Canada geese, mountain goats, and particularly black-tailed deer has shown that this beneficial relationship between timber harvesting and wildlife habitat likely does not exist in Southeastern. The Department of Fish and Game now recognizes that the present forest management practice of clearcut logging on a 90-125 year rotation cycle is permanently converting old-growth, climax forest with high wildlife values to even-aged, second-growth stands of much less value to some wildlife. Until now logging has been concentrated in the economically attractive, higher volume stands at low elevations. These stands represent mostly the old-growth forest communities, and their loss under the present rotation cycle is resulting in a permanent alteration of the natural diversity of plant and animal communities in areas being logged.

Federal legislation concerning forest management requires multiple-use management, maintenance of forest diversity, and maintenance and improvement of habitat for wildlife indicator species; if followed, Federal law can provide adequate protection for fish and wildlife on Federal lands. State legislation concerning forest management on State and private lands (State Forest Practices Act) does not address fish and wildlife concerns. The Alaska Boards of Fisheries and Game have expressed grave concern about the effects of present logging practices on fish and wildlife. Furthermore, as logging increases on State and private lands while continuing at about the same level on Federal lands, the potential exists for even greater adverse impacts.

2. Action Requested:

A. Develop, in concert with the U.S. Forest Service and the State Department of Natural Resources, increased public awareness of the trade-offs involved in timber management by providing information identifying timber harvesting options and the effects on fish and wildlife populations to the public and to governmental officials.

June 3, 1981

Jay S. Hammond

-2-

June 3, 1981

B. Recognizing the State's intent to maintain existing levels of employment in the timber industry, review previous State decisions regarding logging in Southeast Alaska, and if necessary, enact policy changes to seek modification of logging practices on Federal, State, and private lands to minimize impacts on fish and wildlife, their habitats, and their users.

C. Provide, in concert with the U.S. Forest Service and the State Department of Natural Resources, research and development programs designed to assess and mitigate the adverse impacts of timber harvesting on game.

3. Options:

A. Concur with present forest-management policies of concentrating timber harvest in high-volume, old-growth stands located throughout the forest, but attempt to modify cutting practices to reduce impacts on wildlife and its habitat within the constraints imposed by such policies.

B. Rely exclusively on new forest management policies being developed by the Forest Service and the industry as a result of ANILCA. Such a new forest management policy may require the maximum harvest of special and marginal timber which is economically achievable. This may in turn, reduce the rate at which high volume, old-growth stands are harvested. Under this option we could seek to manage game in remaining areas at satisfactory population levels on the basis that the reduced rate of harvest of high volume old-growth stands would provide sufficient time for the research and development programs to resolve the problem of providing for adequate game populations.

C. Seek agency cooperation and industry support for preserving adequate stands of high-volume, old-growth timber to provide healthy, viable fish and wildlife populations to meet recreational and subsistence use requirements in areas selected for cutting, and work with the public, with industry, and with forest managers to maintain the natural diversity of plant and animal communities throughout the forest as much as possible.

4. Option Recommended: Considering present circumstances, Option C is recommended as the initial approach. As research and development provide the means to mitigate or alleviate losses of wildlife or its habitat, Option B could become a more viable option and be substituted in whole or in part for Option C. The Alaska Department of Fish and Game will take the lead in consulting and working with the U.S. Forest Service and the State Department of Natural Resources in order to minimize damage to or loss of important fish and wildlife habitat.

Recognizing the State's desire to maintain existing levels of employment in the timber industry, major areas of concern, need, and attention in implementing the recommended option include the following:

A. Identification of any or critical fish and wildlife habitats that need to be retained in an unlogged condition.

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B. Identification of areas that can be logged with least impact on fish and wildlife habitats. Identification of forest practices in such areas which would provide greater timber volumes than would ordinarily be allowed.

C. Identification of drainages which have high fish and wildlife values or presently receive high public use related to fish and wildlife for the permanent retention of old-growth timber. Identification of the extent to which such values and needs are adequately provided for in those areas of the forest which will be retained in an unlogged state.

D. Improvement of methods of logging and silviculture, utilizing selective cutting in preference to clearcutting where reasonably possible and increasing the production of timber on lands being logged.

E. Resolution of conservation problems on an areal or regional basis as they become known and identified.

F. Expansion of research on wildlife-forest relationships through cooperation or coordinated programs involving Federal, State, and private organizations. The research should be directed at determining precise habitat requirements and possible techniques of maintaining satisfactory game populations and other techniques of mitigating the adverse impacts of timber harvesting upon game.

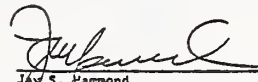
G. Improved working relationships and coordinated logging programs between governmental agencies and private land-owners/companies to maximize conservation efforts where possible.

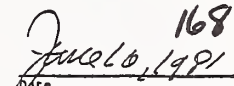
H. Negotiations, if necessary, to change over time the present Federal and State laws, policies, guidelines, and management plans in order to provide more firm direction, coordination, and consistency for the efficient utilization of our timber resources and for adequate conservation of Alaska's fish and wildlife populations and habitats.

5. Funding: No additional funds are requested for FY 1981. Additional funds are being requested for FY 1982 to better define the effects of logging on any fish and wildlife species and areas which can be logged with the least impact.

6. Decisions:

I do not find the options presented as being necessarily mutually exclusive but do, however, concur with your recommendation to initially pursue Option C.


Jay S. Hammond
Governor

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June 6, 1981
Date

Kurt Becker
Box 1757
Wrangell, AK
99929

Oct 26, 1981

Dear Mr. Sandoz:

As a concerned citizen, I would like to comment on the draft Regional Plan for the U.S. Forest Service. I feel that the plan is too general and lacks specific directions. Protective measures for fisheries and wildlife, are in my opinion, vague and inadequate. Examples are the 20% viable population and the 10 foot vegetative height figures. The resource tradeoffs have not been directly assessed nor have they been resolved. In addition, Alaska Fish and Game Departments comments were largely unheeded. I trust you will correct these deficiencies in the final document.

Sincerely,

Kurt Becker

P.S. A few page specific comments on the DEIS are attached

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34

Kurt Becker
P.2

Page specific comments

Draft Alaska Regional Plan.

DEIS COMMENTS

Page 46

* Deer populations in much of the southeast region are presently low. The most significant factors appear to be harsh winters and predation by wolves. What about the reduction in deer winter range carrying capacities due to loss of old growth forests to clearcutting?

Page 47

Paragraph 3

You mention some of the disadvantages of clearcutting but fail to discuss loss of deer winter range habitat as one of the disadvantages.

Page 48

Paragraph 6

"However, other forms of shelterwood cutting would be used to achieve other purposes, such as improved visual appearance." I suggest you add "or lessened impacts to wildlife" to end of sentence

Page 49

Paragraph 1

I suggest adding "or to maintain wildlife habitat" to end of sentence that ends with "... or to prevent erosion"

Page 53

2) Maximum Size of Created Openings

I disapprove of the open-ended size of clear cuts, even if this requires ID team concurrence.

34

254

Paragraph 4

I suggest adding "decreased habitat diversity and consequently lower numbers and diversity of wildlife species" to end of sentence

ye 55

Paragraph 4

If wildlife is the primary consideration, then the criteria that vegetation, to be no longer considered an opening, has reached a 10 foot height or vegetated 75% of the area is not adequate. I suggest using a 25 foot height figure instead.

DEAF REGIONAL PLAN COMMENTS

Page 10

Paragraph 3

I agree that more research is needed to investigate all of the parameters involved in the deer/stag growth issue but feel that those areas that contain thriving populations of deer but minimal amounts of old growth are the exception rather than the rule. The most probable reason for this situation is less severe winter weather in those areas.

"Resolution of this issue is not within the scope of the Regional Plan"

Why not? If the purpose of the plan is "to display and analyze alternative standards and guidelines proposed to respond to major public

issues and concerns", then this issue should be discussed in the plan.

Page 13

The text mentions that the Southeast Area guide needs to be revised, but isn't the Regional Plan designed to supersede the area guide

Page 28

wildlife

Paragraph 1

I suggest stating that several of the wildlife species that are classified as threatened or endangered in the lower 48 states are abundant in Alaska. This list includes grizzly bears, wolves and bald eagles

Paragraph 2

I suggest clarifying the subsistence statement to note that many people who partake in subsistence hunting and fishing are not dependent on it for a source of food. Non-subsistence hunters are equally concerned that subsistence hunters are taking too large a share of the resource. Moreover, it is very difficult to manage subsistence harvests.

P. 29

Paragraph 2

The ADF+G has requested habitat sales in old-growth stands supporting more than 50,000 board feet/secre to retain key areas of deer winter range. It should also be noted that the Forest Service has been overharvesting these high volume stands from what was scheduled in TLMP.

Paragraph 3

The text states that habitat conditions and predation appear to be the most likely reasons for the present low deer populations. I agree but suggest you clarify that the "habitat conditions" are caused by clear cut logging. This statement also contradicts with the statement on page 46 of the DEIS which states that "harsh winters and predation" are responsible.

Page 37

Paragraph 3

Even though the Forest Service supports deep water log storage, why isn't it required?

Page 111

Paragraph 1

"Development of an inventory program will be based upon the present inventory data"

To me, this is very poor. We need better data on our status short-term

34

TLMP says that its data base was too weak. Wildlife, fisheries, soils and hydrology all need more and better data and only when this data is gathered will the resultant plans be worthwhile.

Page 122

(7)

I disagree! Why should any blessing that adversely affects spawning be allowed?

Page 124

(2)

Will it be possible for the USFS + ADF+G to "achieve common goals"?

(8)

How will wildlife values be weighed? How will such amenity values as wildlife be weighed against commodity values?

(5)

Agree that the USFS must commit itself to provide the amount and quality of habitat available to allow the desired levels of game to exist.

(7c)

Why just 20%? I suggest stating that "no more than a 20 percent reduction in

the existing distribution and abundance of habitat classed as high capability will be allowed.

34

Paragraph 2

I question whether all types of uneven-aged management are more susceptible to windthrow than even-aged management. Clearcutting may produce a wind resistant new stand but it often makes adjacent stands more susceptible to windthrow. Recreational thinning can also lead to windthrow if not done correctly.

(4)

From a wildlife standpoint, an area with vegetation only five feet tall and only stocked with 100 trees per acre would be considered a forage area or opening. Even the 10 foot height stipulation is not adequate when wildlife is the primary consideration (P. 55, DEIS)

8) I highly recommend that no mining be allowed in areas utilized by anadromous fish or in high value resident fish areas. If a mine can be operated with no impacts to anadromous fisheries, only then should it be allowed. Subsequent borrow pits could then be converted to salmon rearing ponds.

I failed to see any statements addressing potential conflicts between recreational use and wildlife. This can become a real problem in high value wildlife habitat that receives considerable recreational use. I suggest stating that "land management plans will identify key or high value wildlife and fisheries areas where

examine recreational use could displace wildlife or lower wildlife or fisheries use levels and that steps will be taken to minimize these conflicts."

(5)

I was under the impression that motorized use will be permitted only in areas where it was an established use before the area became wilderness, not that it "may" be prohibited or restricted in designated areas" as stated here.

P. 5

I suggest rewording this sentence to state "...or because of high wildlife values" Key areas apply to all forms of wildlife, not just ungulates.

I suggest using the official definition of threatened and endangered species.

I disagree with this definition. The 20% figure appears not only to be arbitrary but is also not supported by biological evidence. This figure is also below the level that would assure "maintenance over time in spite of normal fluctuations in population level" (Thomas et al 1979). I offer that 40% is more indicative of

L. Barker
p. 9.

minimum viable population but that 50-60% is more
realistic and reasonable

October 28, 1981

John Murray
General Delivery
Sitka, Alaska 99801

John Sander
Regional Forester
Alaska Regional Plan
USDA Forest Service
PO Box 1628
Juneau, Alaska 99802

To Mr. Sander:

My comments should be added to quote the Tongass National Forest in doing a higher quality job than is being done.

I think the plan needs to address the next level on the forest, especially in light of the "deer"-logging issue. And the overestimate of timber inventories. Can the regional plan not deal with these issues and quote the progress in a realistic manner? I don't see how a responsible planning process can say these issues are beyond its scope, or to not even address these important issues at all.

The cut-level of 450 billion board ft. a decade isn't recognized as being detrimental to the deer. The state recognizes its responsibility, but the FES is putting off the need to do something in this plan. It should do more than say it will cooperate, coordinate, and have a master memorandum of understanding drawn up. The FS has

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got to listen to the F&G and do something to guide our Angas people in their important job. Also, the "overestimation of timber inventories" should be addressed, and guidelines set-up for not cutting as much timber, if the forest does not have as much as originally calculated. I know the cut was Congressionally designated, but we must remember "equal consideration, or no more, no less importance".

In reference to job guidelines, p. 117, #6, I think it should read "... in maintaining a continuous program for detailed baseline data, and study, research, monitoring, and assessment. The reason for this addition is that I do not feel that there is enough baseline data for Coho Salmon, which are smaller tributaries, and, therefore, are more susceptible to impact by land-use activities.

In reference to timber guidelines, p. 134 #7a, I must question why utility logs, cull, or endemic mortality logs will not be included in the allowable cut calculations, especially if they will be harvested.

In reference to job goals, p. 92, #5; this should read: "Actively pursue fisheries research by increasing funding so as to focus on resolving conflicts."

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JUNEAU, ALASKA

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John R. Swenson
P. O. Box 922
Berkeley, CA 94701

Page Two

It is known no fossils within the Chagrin Group is not shown include, at least. The following areas as they are noted are known. With representative average included.

- Clearwater
- Dora on
- Johnson Pave
- Kandi Lake
- Lake Kander
- Locality of the
- Miller Park
- Montague
- Rebel pop 12
- Winchman
- Winchman - Co
- Timber Lake
- Red Lake
- Johnson Pave

and immediately profitable. I'll now mention a group of firms that I think will include, I think, the following ones also. The oil companies are I think approximately average in their

[illegible]

- *Parasitoid* - *ovoid* -
- *Chalcid* - *ovoid* -
- *Ichneumonid* - *ovoid* -
- *Proctos* - *ovoid* -

[illegible]

NOV 9 1981

10

- | | |
|-----------------------|---------|
| • Emerald Bay | 150,000 |
| • Thruway Bay | 160,000 |
| • North Knapland | 75,000 |
| • Northgate | 100,000 |
| • Beecher Park | 22,000 |
| • Hunt Meadows Cages | 125,000 |
| • Janssen Bay | 75,000 |
| • Salmon Bay Lake | 95,000 |
| • Dickinson Inlet | 10,000 |
| • Barker Lakes | 95,000 |
| • Hunter Lake | 65,000 |
| • Sell Island | 160,000 |
| • Gifford Island | 200,000 |
| • Diamond Island | 25,000 |
| • Knapland River | 150,000 |
| • Barker Creek | 45,000 |
| • Lake River | 70,000 |
| • Anderson Park | 70,000 |
| • Uga Bay | 45,000 |
| • St. Vincent Bay | 40,000 |
| • Port Stewart | 23,000 |
| • Olivebank Peninsula | 180,000 |
| • B. Iron Island | 5,500 |
| • Neville Island | 100,000 |
| • Portwick Bay | 40,000 |
| • South Island | 145,000 |

[illegible]

Don't know

John A. Sander
P.O. Box 1625
Dunsmuir, CA 95922

11/6/81

Car Hemen:

The changes from the 1976 Area Guide + the Regional Plan with respect to protecting fish production are disgraceful. If I recall correctly, John Sander went to Washington DC in 1976 with the then newly issued Area Guide and disarmed our legislators, notably the late Robert Humphrey, an author of RPA with the promise contained in the Guide. That document decreased the Congressional effort for legislative proper protection in the new Forest Service Organic Act, the National Forest Management Act. (Ted Stearns incorrectly believed that it was the Tongue Land Management Plan (TLMA) that Senator Humphrey aide + advisors saw, but TLMA was not published at the time of the NFMA debate). The point is that the Area Guide had a major impact on the form of NFMA. For example, the Guide states more than ten times that fish production will be from no land riparian destruction. production of a fish rearing inhibited.

Now what do we have in the Regional Plan. Not one word about a requirement of stream side leave strips. There was an issue of vital importance to Alaska and recognized in NFMA, and the Alaska region cannot respect its important an equal policy.

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The draft annual salmon (p. 49) of the plan has the authority to begin the dead salmon of the paragraph on advice of cutting with the usual impact of clarity. While the dead does the Forest Service believe it going to happen when the source of loss for stream pools + maintain "good forever". There is no count a loss cycle rearing hatch, but in the last 50 to 75 years of gray cycle of seed growth because increased overpopulation + loss of water to the Chumish.

Last summer + reported in a letter to the Science Engine that I would consider proposed (egg dams) for fish production unless fishery biologist told in letter to me in the paper that ground (egg) were comparable with fish production. Not one letter was received or given in the Engine. Not even a Forest Service fishery biologist would address the issue I raised.

With respect to fish your plan, black, isn't with the shit.

Sincerely,

Philip M. Myers

Box 1024

Kenner, Hawaii 96763

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FOREST SERVICE

Nov. 3, 1981

Dear John Sandor,

We want to thank you for the opportunity to comment on the Regional Plan and EIS/ Draft Alaska Regional Plan). We have been residents of Southeast for over five years and consider it our home. We depend heavily on the Tongass National Forest for recreation, fish, firewood, furs, ~~and~~ wild game, and berries, as well as the quality of our life. The vast tracts of public land (15 million acres), together with the miles of undeveloped shoreline, ~~are~~ the chief reason we settled in this area and hope our children grow to appreciate the land's beauty. We utilize free-use lumber extensively in home construction. We are obviously concerned about the future degradation of this pristine environment.

Some general comments on the Draft Alaska Regional Plan:

- (1) pg 11-1st paragraph, last sentence. The sentence is unclear. There are no bears and wolves on Sakolof, Kienoi, or Level Islands, ~~and~~ no wolves on ~~the~~ the ~~Islands~~ Little Islands. Nothing (or little) about the

effects of logging on deer-wolf-bear relations is clear.

- (2) pg. 23-25: overemphasis on commercial fishing - more attention should be given to sport and subsistence-fishing requirements
- (3) pg. 26: Situation Statement: The primary goal of the wildlife habitat program should be to manage wildlife within ~~a~~ a reasonable balance of habitat values within the given area and maintain the maximum numbers of wildlife that can be supported in an ecologically sound manner. ~~as~~ as stated by Steeg (F-11). Desired levels reflect present projected levels (which are sure to be wrong in the future) and give no assurance that ^{presently} remote areas like Kuiu I. will receive ecologically sound wildlife habitat management. Our children may suffer in the future because ~~your~~ your desired levels were wrong.

- (4) pg 29 - projected demand for deer of 500 in mid 1980's is low. Historical hunting levels were higher. The projected demand does not take into account the fact that Petersburg and Wrangell which used to harvest several thousand deer doesn't have a full deer season so demand has been underestimated. 123

I also think demand for furbearers is low if that reflects number of animals taken

(5) pg 35-44: Southeast isn't a rain forest technically - it is a moist temperate forest.

(6) pg 41-64: IT is mistletoe a major problem that can be treated? I thought recent data showed that control of mistletoe was not cost effective.

(7) pg 49-52: An additional assumption - logging roads connected with population centers will become key areas for recreation. We see this pattern on MITT of with roads receiving great use for hunting, fishing, hiking and other recreational access.

(8) pg 131: A clearcut with 5 foot trees is still a clearcut and an opening to wildlife species. It does not offer thermal cover, ^{high} perch sites, protection from snow, ^{only} lack of vertical diversity. Deer can not move under the canopy cover as they normally can in a forest. The forest - clearcut edge is still visible and distinct. The scrub understory is highly visible. The proposed definition has no basis **123** other than to speed up clearcutting

an area and would result ~~in~~ in a ~~larger~~ clearcut with little edge effect and low diversity. Such a definition would have serious effects on moose, deer, beaver, furbearers and blue groves. I propose that ~~a~~ a clearcut be considered no longer an opening when ~~the~~ conifer trees reach a height of 40 feet. This would help alleviate visual impacts and be more compatible with wildlife species.

(9) pg 131: ~~740T~~ → All material harvested from Forest Service lands should be considered in the 450 million board feet. This figure needs to be critically examined to see if 450 million annual can be produced with undo damage to soils, water, visual resources, recreation, fisheries and wildlife.

(10) pg 92 Number 5 under Fish and number 6 under Wildlife should be rewritten: 6. Encourage research that focuses on identifying and needing... ~~the~~

The Forest Service has a past history of trying to play down impacts of timber harvesting on other resources. For years their foresters contended that clearcutting was good for **123**

deer!! The F.S. should actively research to identify impacts on these valuable resources.

(11) Chapter III

Visual quality goals, objectives, and guidelines have been ignored in this plan. The Forest Service is not complying with visual guidelines and objectives set forth in the Area Guide and TLMP. For example, north Mt. Kat is close to a large community; highly visible; close to a ferry system; visible from a state highway; ~~visible~~ hiking trails; and 2 wilderness areas; ~~visible~~ visible from 2 heavily traveled boat routes; and visible from 2 communities yet the Forest Service is heavily cutting the island. The future Cabin Sale will not meet the visual quality objectives so Area Mgmt Analysis is presently at work working down the guidelines and the end result will be the island will be completely ruined from visual quality point of view. Visual quality objectives, and guidelines need to be established in the Regional Plan on the impact of growing

the value of Southeast scenic quality needs to be addressed in the EIS. 123

(12) pg 135 Number 8 Mean Annual Increment
Delaying ^{the} harvest (clearcutting)
til stander reaches CMAI would
eliminate the possibility of using
shortening rotation as a wildlife
habitat mgmt tool. Shortened
rotation would have major benefits
in maximizing forage production for
wildlife species that utilize early
successional clearcut stages; species like
moose, bear, grouse, and deer on
little islands. The option to use
~~the~~ shortened rotation as a wildlife
habitat management technique should
be retained and Number 8 ~~is~~ needs
to be rewritten to reflect that.

(13) pg 141 Number 8 - Special use cabins
should be revoked as quickly as
possible in wilderness areas. They degrade
the quality of the Stikine and the
Petersburg Creek wilderness areas. The
S.O. has allowed their recreation
supervisor to give preferential treatment
in issuing permits and transferring
special cabin use permits to his old
buddies.

(14) pg 142 #15. Tent platforms lead to garbage
and trash problems on the Stikine River
from moose hunters. This does not 123

seem compatible with wilderness objectives.

Comments on EIS.

(1) pg 58-59: The effects of large clearcuts (100 acres) joined together every 5-10 years (when trees reach 5 feet of height) has not been adequately addressed. The stressor intent is to cut, cut, without regard to visual or wildlife impacts. Even though the Forest Sup. ~~has~~ has the option to extend the definition of an opening, he never will. How was the biological justification of an opening ~~derived~~ derived? The effect of a super ~~clearcut~~ clearcut (the whole drainage or hillside) being created in 20 to 30 years following alternative B needs to be discussed.

Moose don't know the difference between a 5 foot or a 10 foot ~~clearcut~~ ^{clearcut} - They are both clearcuts. The same with ~~deer~~, songbirds, and deer. This alternative gives the Forest Service the ability to cut all a VCU in ~~2 or 3~~ 2 or 3 not at 10m spaced at 5-10 year intervals. I do not see this being discussed in the ~~EIS~~ EIS. A min. of 40 feet should be the worst case alternative.

- (2) Deer management is a critical public issue that needs to be addressed in the regional plan. The same is true for guidelines for visual resource protection and fisheries protection. The EIS and the plan avoids this key public issues by referring them to Forest Planning where they will never be adequately addressed by public review. Forest planning is a good way to get around cumulative effects that the regional plan would have to face. The EIS is deficient in addressing these impacts.
- (3) All the guidelines of the area guide regarding fish and wildlife protection measures need to be incorporated in the Regional Plan ~~not~~ instead of deferred (last in) "Forest planning".
- (4) The effect of maintaining a 450 million BF cut needs to be displayed as far as the loss of wildlife habitat during the life of the Regional Plan.
- (5) pg 21 Cull and utility logs and logs harvested by industry from substandard sites need to be included in the yield calculations or the impact of harvesting more timber than Congress mandated needs to be explained in 123

the EIS.

We hope you will consider these recommendations in the final plan and EIS.

Sincerely,
Rose Galt
Joseph Deen
Box 67
Petersburg, Alaska
99833

P.S. Please send us a copy of the final plan and EIS.

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5 November 1981

John A. Sandor
Regional Forester
Attn: Regional Plan
USDA Forest Service
P.O. Box 1628
Juneau, Alaska 99802



NOV 10 1981

FOREST SERVICE O.I.

Dear Mr. Sandor:

I have reviewed the Draft Alaska Regional Plan and the companion Draft Environmental Impact Statement. I have many concerns, some which are appropriate to share with you.

The draft documents represent a great deal of effort and contain a large amount of information. Yet three areas of concern are described as requiring "major policy change to resolve" (pg. 14, Draft Plan). When re-writing the Regional Plan, I hope these issues will be addressed, particularly the old growth/critical habitat issue. A Plan that doesn't address issues is of little real use in solving problems and deciding a course of action.

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I am concerned that continued logging in Southeast Alaska will decrease habitat utilized by mountain goat and deer (as well as other animals), particularly the habitat which is critical in severe winters - the old growth forest. My belief is that there should be no logging in critical habitat areas until this issue is resolved. If the relationship between timber harvest and wildlife habitat needs is undefined, then, if an error is to be made, it certainly should be made on the side of resources.

I am concerned that Southeast will be honeycombed with roads, and that sensitive ecosystems will be the sites of transportation corridors. When I think of roads I think of people and automobiles and of new and/or increased pressures on wildlife that wildlife doesn't need. And I can't help but suspect that the Forest Service's interest in building roads is not to connect communities, but to make timber sales more attractive to bidders. I hope that transportation planning will take into account that some communities do not want to be connected to other communities by roads.

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I am concerned that continued logging in Southeast will have an adverse effect upon fisheries, and will lead ultimately to a vanishing commercial salmon fishing industry.

I note that assumption #2 on page 25 of the Draft Plan states "Management and protection of natural stocks and habitat will remain the primary means of increasing or maintaining fish productivity." Assumption #5 on the same page states "Natural habitat quality and quantity will diminish because of community expansion and other permanent land use developments. Remaining habitat will have to support desired levels of fish production." (I interpret "~~remaining~~" "remaining habitat" as National Forest land.) As I read the draft plan in its entirety I note that fish spawning and rearing habitats are not protected and water quality for these habitats is not ensured.

Management of the various salmon fisheries is a complex balancing act. Results of management practices are seldom realized immediately; indeed, by the time a "mistake" has been made it is usually too late to make short-term compensation. This time delay makes what happens to 152

the spawning and rearing areas and what happens to fertilized/developing eggs and to rearing fry/pmolts critical in the maintenance of recreational, subsistence and commercial fisheries.

The Draft Environmental Impact Statement and the Draft Regional Plan call on "enhancement and protection of habitat -- fishways, stream clearance, spawning channels, lake stocking and fertilization" for fisheries production.

Enhancement measures are tools for building and/or maintaining fish stocks. Sometimes they work, sometimes they don't. Fishways may be avoided, stream clearance measures can produce rushing torrents, spawning channels flood out, and lake stocking and fertilization can make a formerly productive lake eutrophic. Can we afford to depend upon tools having these known results?

Rather, should we not have logging methods and means that are not destructive to fish in both the long- and short-term? To me, a Regional Plan should be the vehicle to reach this end.

I am concerned that the Forest Service holds the legislative mandate for timber harvest in Southeast (450 million board feet per year) as an inflexible number. A resource manager has the responsibility to the public to not be short-sighted, and to fairly consider all aspects of an issue when forming policies and guidelines for regulations. A responsible resource manager should not ~~attempt~~ complacently comply with legislation having the potential for long-term negative impact to renewable resources. Legislation is not static; it can be changed. And if the harvest mandates for timber in Southeast Alaska are extreme, then the requirement should be reduced, and the resource manager should take the lead in ensuring such legislation.

A resource manager also has the responsibility to educate the public about the manager's goals and objectives, and about the programs to meet these goals and objectives. Confusing, tersely worded Environmental Impact Statements don't communicate well with most of the public.

One avenue that the Forest Service could explore is the development of educational materials for elementary and high schools. I've found that older persons often have their minds made up and are resistant to information contradicting what they believe, but younger persons can be introduced to a variety of subjects and philosophies, particularly when the information is presented in a usable format.

Also, the Forest Service has employees who spend time in rural areas. If these persons had cross-cultural training, as well as knowledge of local situations and problems, the potential for information exchange and understanding would be enhanced.

I wonder if many people in Bureau aren't taken aback by paragraph 4 on page 41 of the Deep Environmental Impact Statement. Much of Bureau's population is quite tied to the land and the ocean; many government employees prefer to eat Salmon and deer over other foods, and prefer to spend their quiet moments on National Forest Lands. Conversely, many village residents work at full-time jobs and have little time to invest in "traditional" methods of food gathering and preparing.

When writing the final regional plan, please consider that "subsistence" is an individual thing, and ~~that~~ avoid the image of a suburban resident as a beef-and-potatoes, beer-and-TV type person, and a village resident as a rough and tumble hunter-gatherer.

The Draft Alaska Regional Plan and the Draft Environmental Impact Statement give me the impression that multiple use management is not planned for those lands not with drawn for wilderness management nor selected by Native Corporations. The plan seems biased towards timber harvest and increasing the gross national product. The slow growth forests of Alaska cannot be expected to work magic on the ailing timber industry. Instead of large scale logging schemes, the Forest Service should let **WILD FORESTS** support small timber operations and enable deer, mountain goats, salmon, and other fish and wildlife to flourish.

Sincerely,
J.E. Hall
J.E. Hall

9434 Liberty
Anchorage AK 99507

November 6th, 1981

John A. Sander
Regional Forester
Tuneau, Alaska

Dear Mr. Sander:

I recently completed reading the Draft Alaska Regional Plan and the accompanying Draft EIS. All of the following comments refer to the Draft Alaska Regional Plan.

Four years ago there was extensive and intensive public participation in the preparation of the Southeast Area Guide. The result was a publicly supported document with specific management prescriptions designed to solve the major public issues. In guiding the preparation of the Draft Regional Plan, the policies in the Guide were analyzed for their adequacy and the extent to which a modification or new policy would contribute to issue resolution. In my opinion, many of the Area Guide's specific management prescriptions which were "clarified" in the draft were really "generalized", and therefore are less clear than previously, to the point of hindering issue resolution. Additionally, some of the changes made from the Guide to the Regional Plan are far from minor; such changes require inclusion in an EIS, rather than being deferred to "forest planning".

The second major shortcoming of the Draft Regional Plan is its failure to resolve the conflict between harvest of old growth timber and wildlife habitat. What was appropriate planning document is thus to resolve this issue. The public very clearly identified this conflict as being a major issue, and also clearly desires to have the issue addressed in an adequate manner now. The positions of the Alaska Department of Fish & Game and of the Board of Fisheries & Game have been stated; it is now the responsibility of the Forest Service to state

In addition to these general comments, following is a short list of page-specific comments:

Page 23, Assumption 6: "If all available precautionary measures are implemented, no significant adverse effects will result." This statement is simply not true. Even if all precautionary measures are implemented, logging still causes some adverse effects on fisheries. In the LPA 1979-1984 Five Year Plan EIS the Forest Service stated that there were temporary adverse effects on the fisheries, "temporary" being defined as a five to ten year effect. Why does this difference in statements occur?

Page 29, Paragraph 3: "Provisions are made in each timber harvest area to retain a portion of old growth forest habitat to meet wildlife and other resource needs." Again, this is a question of a statement which does not

forthrightly address public concerns. In fact, retention of some of the old growth may maintain a substantially reduced population of wildlife. Much of the public is unaware that the term most frequently used in Forest Service documents - "viable population" - means a substantial reduction in the present level of wildlife in the Tongue National Forest. Nor does the public understand that viable population levels are not closely defined for much of Southeastern wildlife.

Page 37, Paragraph 4: "The maximum sustained timber harvest for lands being managed for timber production is approximately 700 MMBF per year, long-range sustained yield." Does this figure include privately-owned commercial timberland? If based on Forest Service commercial timberland, further elaboration is definitely necessary. 700 MMBF seems like a number drawn from a hat.

Page 40, Paragraph 5: "It is assumed that the higher quality logs will be exported in the round and that only a small proportion (low quality logs) will find their way into local pulp markets." In LTRP, it was assumed that 36 MMBF per year of native logs would be sold to the Southeast pulp mills. Is this assumption holding true?

Page 46, Paragraph 7: "In addition, 12 percent on 2,441,000 acres (on the Tongue) are being managed to limit road building and development activities." All indications are that the LUD II clarification of these areas will not include logging during the revision of LTRP in 1985. Since one of the major issues raised during preparation of the Draft Regional Plan was "changes in Recreation Opportunities & Visual Resources", it would seem appropriate that the public be informed of such a significant probable change. For instance, the Natche River drainage is a very important and heavily-used area for Ketchikanites; if development is to occur there, it will have a strong effect on local-oriented recreation in the Ketchikan area.

Page 134, Utilizations Standards: "... on wildlife logs will not be included in allowable sale quantity calculations." Since wildlife logs are used for production of pulp, and since both 10% year contracts guarantee a supply of pulpable logs, not sawtimber, it is difficult to understand why wildlife logs are not included in the allowable sale quantity calculations.

Thank you for this opportunity to comment.

DISCUSSION
NOV 10 1981

FOREST SERVICE O.I.

Sincerely,
Marilyn Conley
114 Elliott
Ketchikan, Alaska
99901

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David A. Baird
1720 EAST 27th
Anchorage AK 99504

30 X 81

John Sandor
Regional Forester
U.S.F.S. Box 1628
Juneau AK 99802

Dear Mr. Sandor -

I am responding to the Forest Service's Draft Alaska Regional Plan and its Draft Environmental Impact Statement issued in August of this year.

I believe that the plan needs to be strengthened because some management guideline dealing with the protection of fish and wildlife habitat have been deleted in the regional plan. As a biologist involved in wildlife research in Alaska during the past 5 1/2 years I realize that this protective clause is absolutely necessary. Some issues that must be addressed are: restoring guidelines for road

building in fragile areas, clearing fish streams, logging debris within 48 hours and forming guideline to resolve conflict between logging and either blacktail deer. Likewise, advanced logging should be completely eliminated from the regional plan (AES p. 19)

And finally, the Plan needs to be clarified with respect to the 450 million board foot per year harvest level discussed therein. There are some discrepancies and conflicts with respect to maintenance of this level of 450/year cut.

Sincerely yours,

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Appendix D

**SILVICULTURAL CHARACTERISTICS OF MAJOR FOREST COVER
TYPES**

1. Western Hemlock-Sitka Spruce	D-2
2. Interior Alaska White Spruce-Hardwoods	D-11
3. Red Alder	D-20

The information contained in this appendix is taken from a pre-publication draft of the Agriculture Handbook No. 445, "Silvicultural Systems for the Major Forest Types of the United States," which will undergo revision and will be published some time in late 1983.

1. Western Hemlock-Sitka Spruce

A. S. Harris
Pacific Northwest Forest and Range Experiment Station

David L. Johnson
Alaska Region

The western hemlock-Sitka spruce forest type (2) as recognized by the Society of American Foresters (type 225) is composed of stands in which western hemlock (Tsuga heterophylla (Raf.) Sarg.) and Sitka spruce (Picea sitchensis (Bong.) Carr.) comprise a majority of the stocking. Also included at various locations may be small admixtures of Douglas-fir (Pseudotsuga menziesii (Mirb.) Franco), grand fir (Abies grandis (Dougl. ex D. Don) Lindl.), Pacific silver fir (Abies amabilis Dougl. ex Forbes), western redcedar (Thuja plicata Donn ex D. Don), Alaska-cedar (Chamaecyparis nootkatensis (D. Don) Spach), mountain hemlock (Tsuga mertensiana (Bong.) Carr.), red alder (Alnus rubra Bong.), black cottonwood (Populus trichocarpa Torr. and Gray), vine maple (Acer circinatum Pursh), and bigleaf maple (Acer macrophyllum (Pursh) (2).

Tree species within the type change with latitude. Douglas-fir is an important associate in Oregon and Washington; Western redcedar is important in British Columbia and extends into southeast Alaska. Pacific silver fir becomes an associate north of the Columbia River and extends north through British Columbia and into Alaska. Alaska-cedar and mountain hemlock become associates north of central Vancouver Island. Shore pine (Pinus contorta Dougl. ex Loud.) is an associate on some sites from Oregon to Alaska. Red alder and black cottonwood are important hardwood associates in seral stands throughout the range; bigleaf maple is common only in the southern latitudes of the type.

The type occupies a coastal strip 2,000 miles (3220 km) long from southern Oregon to south central Alaska (11). Its greatest extent is in southeast Alaska where it reaches a width of 130 miles (210 km) including a narrow mainland strip and offshore islands.

Northwestward, along the Gulf of Alaska, the type narrows greatly, limited by steep mountains and glaciers, widening again to include islands within Prince William Sound. In British Columbia, the Queen Charlotte Islands lie entirely within the type, and a narrow strip extends along the mainland and on the west coast of Vancouver Island with stringers along major streams. In Washington and Oregon, the type occupies a narrow coastal strip and extends inland along streams and rivers.

The type occurs at sea level throughout its range, extending to elevations of 3,000 feet (910 m) in British Columbia and southeast Alaska. North and west from southeast Alaska, upper limits gradually lower to 1,500 feet (460 m) around Prince William Sound. Toward the south the type reaches elevations of 1,800 feet (550 m) along the Oregon coast, and as high as 3,000 feet (910 m) in especially moist situations on the Olympic Peninsula, Wash. (11).

Soils vary by latitude. In the Coast Ranges of Oregon and Washington, inceptisols and ultisols are the most widespread. Northward through British Columbia and Alaska, spodosols and histosols are more prevalent. Throughout the type, entisols are found along streams.

From the Olympic Peninsula northward, glaciation has affected soil development. Soils tend to be less well developed northward. In Alaska, most spodosols have low clay content; colloidal organic and iron compounds are the main source of cation exchange and water retention. They have relatively high moisture retention capacity and relatively high rates of water transmission. A substantial proportion of nutrients is concentrated in the surface organic layers. Even in the deeper soils, tree rooting is generally shallow, and, therefore, destruction or serious disturbance of the upper soil layers is likely to have adverse effects on tree growth (11).

The type is confined to an area of maritime climate with abundant moisture throughout the year, relatively mild winter temperatures, and cool summers. Lack of a pronounced summer drought is an important factor affecting vegetation. Length of growing season and total solar energy received during the growing season decrease northward and account for much of the variation in productivity, soil development, and species composition within the type (3).

Total annual precipitation tends to be high throughout the type, apparently little influenced by latitude; 60 to 150 inches (1525 to 3810 mm) is common with up to 300 inches (7620 mm) in some localities. Local topography greatly influences precipitation. Average depth of snowfall during the winter decreases southward, ranging from 134 inches (3400 mm) at Cordova, Alaska, to 5 inches (125 mm) at Otis, Oreg. Summer precipitation tends to be greater toward the north. Along the southern Alaska coast, frequent cloudiness, light summer drizzle, and fog are common. Toward the south where summer precipitation is less frequent, damp maritime air helps to maintain moist conditions.

Storm winds often sweep in from the Pacific Ocean during the fall and winter, causing frequent wind damage. In Oregon and Washington, the greatest damage is from south and southwest winds of approaching storms. Gale-force winds are most common in October and November. In southeast Alaska the most damaging winds are from the southeast and occur most frequently from September through November. Management strategies have been developed to reduce wind damage in the forest, such as selecting windfirm cutting boundaries, shaping cutting units to minimize the length of cutting boundaries exposed to storm winds, and laying out cutting strips perpendicular to prevailing storm winds with progressive cutting of strips toward the wind (11).

Both western hemlock and Sitka spruce are prolific seed producers. In Oregon and Washington, both species produce some seed most years with heavy crops every 3 to 4 years. In Alaska, a heavy crop occurs every 5 to 8 years. The seed is small and is carried long distances by the wind. Western hemlock is an especially heavy seed producer, and even relatively poor seed crops usually produce enough seed to ensure natural restocking (16). Seed production generally is adequate for establishment of regeneration even on large clearcuts, so few areas fail to regenerate from lack of seed. Failures more often are due to competing vegetation (11).

Western hemlock and Sitka spruce seed will germinate, and seedlings will grow on both organic and mineral soil seedbeds. Establishment and subsequent growth, however, are better on soils with a high percentage of organic matter. In Alaska, soils stripped of surface organic material may be unsuitable because underlying soil horizons contain few nutrients to support growth. Exposure of mineral soil also provides a good seedbed for red alder and brush species, which compete with conifers (6).

Shade improves seedling establishment where low moisture or high temperature is limiting. Both duff-covered soil and rotten wood can be good seedbeds under light shade, but too much shade can prevent seedling establishment. Toward the south, exposed organic seedbeds tend to dry out more readily and few seedlings become established on them. On the other hand, soils are deeper and better developed than in Alaska and have more nutrients available in lower soil horizons to support good tree growth (11).

Western hemlock is more tolerant of shade than is Sitka spruce and dominates reproduction in old-growth forests (4). Both species are capable of rapid growth increases if shade is removed.

Soil and ground water conditions are important in determining the success of tree species. Lodgepole pine (*Pinus contorta* Dougl. ex Loud.), Douglas-fir, and red alder roots can grow in soils with high bulk densities. These soils prohibit the growth of Sitka spruce, western redcedar, and western hemlock. Pacific silver fir ranks between these two groups (9). Red alder, western redcedar, Sitka spruce, and western hemlock are more tolerant of high water tables than is Douglas-fir (8).

Western hemlock-Sitka spruce is one of the world's most productive forest types. Yield tables are available for unthinned even-aged stands of mixed hemlock and spruce in Oregon, Washington, and Alaska. They show that many stands in the southern part of the type's range produce over 200 cubic feet of wood per acre per year ($14 \text{ m}^3/\text{ha}$ per yr) (1, 7, 12). Productivity decreases with increasing latitude (3). Stand volumes can be impressive. One plot in a 147-year-old stand in coastal Oregon contained, on an area basis, 76 spruce and 13 hemlock per acre (188 spruce and 32 hemlock/ha). Total volume was 34,000 cubic feet per acre ($2380 \text{ m}^3/\text{ha}$). Spruce averaged 210 feet (64 m) in height and 34 inches (86.4 cm) in diameter at breast height (d.b.h.) (4).

Even-aged management is practiced throughout the western hemlock-Sitka spruce type. The optimum rotation age for management of hemlock-spruce

depends on the objectives of the landowner. Many hemlock-spruce forests on industrial lands are managed on an economic rotation that varies from about 40 years in accessible, intensively managed areas, to well over 100 years in less accessible areas.

The white pine weevil (Pissodes strobi (Peck)) is the most serious enemy of young Sitka spruce in Oregon, Washington, and British Columbia. It is not a problem on the Queen Charlotte Islands nor in southeast Alaska. Within its range, the weevil is more damaging to widely spaced trees on drier sites located inland. Close spacing and the planting of Sitka spruce in small blocks offers the most practical means of minimizing damage in plantations (5). Weevil damage limits the suitability of many sites for future management of Sitka spruce.

The western blackheaded budworm, Acleris gloverana (Walsingham) is an important defoliator of western hemlock and Sitka spruce in coastal forests of Oregon, Washington, British Columbia, and Alaska. Another defoliator, the hemlock sawfly (Neodiprion tsugae Middleton), attacks western hemlock. In this order, these are the two most destructive forest insects in coastal Alaska. Other defoliators include the western hemlock looper (Lambdina fiscellaria lugubrosa (Hulst)), and the saddle-backed looper (Ectropis crepuscularia (Denis and Schiffermuller)) (5).

The thin bark and shallow roots of hemlock and spruce make them particularly susceptible to logging injury, which leads to decay, especially in hemlock. Losses from decay fungi are high, especially in the old-growth forests of Alaska. Conversion from old to young growth has great potential for reducing decay, but root rots that reduce growth and vigor then become important. Spread of Heterobasidium annosum (Fr.) Bref. from old stumps to new seedlings can lead to damage in hemlock plantations. Extent of damage is correlated with frequency and intensity of thinnings (13). Hemlock dwarf mistletoe (Arceuthobium tsugense (Rosend.) G. N. Jones), an important disease of western hemlock, can best be controlled by clearcutting (11).

Fire danger is of less concern here than in drier forest types. The greater concern is in the southern part of the range, particularly inland in the transition zone toward hemlock or Douglas-fir forests. Slash burning to reduce fire hazard has been common wherever conditions were dry enough to permit burning, but the trend now is away from slash burning. Fire does not play an important role in the management of coastal Alaska's forests, and slash burning has not been practiced there (6).

Regeneration of hemlock-spruce forests can be attained with any silvicultural system or combination. The choice depends on profit to the landowner and the need to integrate timber harvest with other forest values.

Clearcutting is by far the most common silvicultural system used in harvesting western hemlock-Sitka spruce stands (11). It is recommended where timber production is the primary use. Logging costs are lower than with other systems. Exposure to the sun raises soil temperature, which speeds decomposition of mor, thereby improving the productivity of northern sites. Clearcutting favors regeneration of Sitka spruce by destroying

advance hemlock regeneration and by creating more favorable conditions for post-logging reproduction of spruce. Eliminating residual overstory trees infected with dwarf mistletoe prevents infection of western hemlock in the new stand. Clearcutting also facilitates residue management and fire protection and eliminates the risk of blowdown in residual stands. The chance of blowdown along cutting boundaries is increased but can be reduced through proper design of cutting units.

Natural seed fall is generally adequate for regeneration, and most young stands are dense. Direct seeding has been done to supplement a poor seed crop, alter species composition, or regenerate areas left without a natural seed source, but is not effective if regeneration failures are caused by competing vegetation. Restrictions on use of rodent control chemicals, high cost of seed, and development of improved nursery and planting techniques have made planting a better regeneration method (11).

Planting is often done to reduce the time required for natural regeneration on problem sites, to increase the percentage of Sitka spruce in stands, or to replace Sitka spruce with Douglas-fir in areas subject to weevil damage. Handplanting is required because hillsides usually are too steep for machine planting; flat bottomland is too wet; and where old-growth stands are logged, heavy logging residues create obstacles, even if broadcast burning is done. Both bare-root and container-grown stock are used. Where animal damage is a problem, measures such as use of plastic mesh tubes, chemical repellants, and modification of animal habitat may be necessary to protect seedlings (11).

Clearcutting may be less aesthetic than other harvesting systems, although size, shape, and arrangement of clearcuts can be altered to reduce the visual effect. On National Forests in Alaska, openings are limited to 100 acres (40 ha) or less except under specific circumstances. After clearcutting, several years may elapse before the site is again fully utilized for timber production, and competing vegetation tends to take over the site more quickly than with the shelterwood or selection systems: In extensive swampy areas, clearcutting may reduce transpiration enough to cause an undesirable rise in the water table. In the northern portions of the hemlock-spruce type where winter snows are deep, clearcutting extensive areas of old growth can impair the quality of deer habitat (14).

Hemlock and spruce lend themselves to shelterwood cutting because both species can become established under a suitable forest canopy. Shelterwood cuttings resemble heavy thinnings, and use of this method logically follows a series of commercial thinnings in immature stands.

The shelterwood system may be preferable to clearcutting where it is essential to maintain a continuous tree cover, to reduce visual change, to reduce erosion, or to minimize encroachment of unwanted intolerant vegetation. Shade can be controlled, thus providing some control of species composition in the regenerating stand. In order of decreasing shade, seedlings of western hemlock, Sitka spruce, Douglas-fir, and red alder are able to become established (10). Logging costs are higher with shelterwood cutting because several entries are made into the stand. There

is increased danger of wind damage to the residual stand. Overstocking of western hemlock regeneration can be expected, and growth rate of seedlings is slower under shade (11). The system is not appropriate for stands infected with dwarf mistletoe or for old-growth stands where trees are large and defective.

The selection system has not been tested in the western hemlock-Sitka spruce type, but in theory it appears to have merit. With the selection system, a high uneven-aged forest cover could be maintained, resulting in less visual change and greater stability of environmental conditions. It may have application in scenic areas where both forest cover and commercial timber production are desired, and may be a useful system for maintaining good deer habitat in the northern portion of the type. The system might be used to discriminate against unwanted intolerant plant species by restricting the size of openings.

Disadvantages of the selection system are that frequent entries must be made into the stand to remove trees individually or in small groups, thus increasing logging costs and the chance of logging damage. Risk of wind damage also increases. A more extensive road system needs to be maintained to secure the same volume of timber as obtained by use of other systems, and this could result in increased erosion. It would be the least desirable system where timber production is a major goal.

Converting older, even-aged stands with trees of fairly uniform, large diameters, or stands having several age classes to uneven-aged stands with a progression of diameter classes, would be a lengthy process. The selection system would not be desirable for hemlock stands infected with hemlock dwarf mistletoe.

The seed-tree system offers little advantage for use in hemlock-spruce forests. Overdense regeneration usually occurs even without seed trees; and on problem sites, additional seed offers no guarantee of regeneration success. Exposed trees tend to blow down, and it is costly to harvest them at a later date. From the standpoint of wildlife management, the seed-tree system might be used to provide snags for nesting or perching sites. Selection of seed trees could be based on their suitability for wildlife habitat as well as for seed production (11).

Both hemlock and spruce respond well to release, and growth rates increase immediately after thinning (15). Early precommercial thinning is recommended where stands are overdense. Height growth of Sitka spruce and western hemlock are nearly equal during the period of most rapid growth, but spruce grows more rapidly in diameter. Consequently, thinning from below tends to favor spruce.

Commercial thinning is becoming more common, but conventional logging methods have not proved satisfactory, and economics has limited thinning opportunities in hemlock. Cable yarding is often preferable to use of tracked or wheeled vehicles and is the only practical means on steep slopes. In Alaska, commercial thinning has been limited because of the predominance of old-growth stands, poor accessibility, and limited markets for small material.

Multiple use management of resources is practiced to various degrees in the western hemlock-Sitka spruce type depending on forest ownership, suitability of the land, and relative demands for various resources. Timber is a major resource; recreation, scenery, wildlife, and fish are important resources as well. Hemlock-spruce forests provide habitat for game and nongame animals and watershed protection for spawning and rearing habitat for anadromous fish. They provide recreational opportunities and scenery rarely found in any other forest type.

Clearcutting will doubtless continue to be by far the most economical and practical silvicultural system for use where timber production is a major objective of management. The shelterwood and selection systems could become more widely used in situations where the use or protection of other resources is paramount.

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2. Interior Alaska White Spruce-Hardwoods

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The interior Alaska white spruce-hardwood forest complex is the western extension of the boreal forest zone which spans Canada. In Alaska, these forests, also referred to as taiga, are composed of the following Society of American Foresters forest cover types (1): White Spruce (type 201), White Spruce-Aspen (type 251), White Spruce-Birch (type 202), Paper Birch (type 252), Aspen (type 217), and Balsam Poplar (type 203). The Black Spruce-White Spruce (type 253) and Black Spruce-Paper Birch (type 254) types may intergrade with the white spruce-hardwood complex on some sites. This complex covers approximately 22.5 million acres (9.1 million ha) of commercial forest land.

The northern extent of this forest complex is the Brooks Range with the exception of isolated balsam poplar stands farther north. These boreal forest types extend south to the coast in the Kenai Peninsula-Cook Inlet region. East of Cook Inlet, they extend to the Kenai-Chugach Mountains while the westernmost forests occur on the Seward Peninsula and lower Yukon River (9, 11). Forests in this region extend from sea level to a maximum treeline elevation of 3,000 feet (915 m).

Soil parent materials vary greatly, including alluvial deposits along the major rivers, loess deposits (mainly in the unglaciated portions of the interior), various types of glacial deposits, lacustrine deposits and various bedrock types. Spodosols are common south of the Alaska Range, with inceptisols occurring north of the Range. Entisols predominate on floodplain sites. Although organic layer development is a prominent feature of these northern forests, histosols are not common.

A unique feature of the soils is the presence of permafrost. However, permafrost is not continuous in the region and is absent from the most productive forest sites (e.g., southfacing upland and floodplain sites in particular). The occurrence of permafrost and depth of the active layer (i.e., annual depth of thaw) may be closely related to organic layer development (8).

Three broad climatic zones occur in the boreal forest area. These are the Arctic, Continental, and Transitional. Temperature extremes vary from -75°

to 100° F (-59.4° to 37.8°C). The duration of the frost-free period is normally 90 to 110 days (5). The warmest summer temperatures normally occur in the central to eastern interior region with decreasing maxima to the south, north, and west. The reverse is true in winter when the Transitional Zone has the mildest temperatures.

Annual precipitation varies from 8 inches (205 mm) at Fort Yukon to 32 inches (815 mm) on the Kenai Peninsula. The probability of precipitation is generally greatest from June through September. Annual snow fall varies from 50 to 100 inches (1270 to 2540 cm) (5).

Maximum day length (hours of sun at summer solstice) during the growing season varies from 17 hours at 60° N. to 24 hours north of the Arctic Circle. There is a 24-hour light period throughout most of this area, if twilight is considered. Day length at winter solstice varies from 0 to 6 hours (5).

The major species in this forest complex include white spruce (Picea glauca (Moench) Voss), paper birch (Betula papyrifera Marsh.), trembling aspen (Populus tremuloides Michx), balsam poplar (Populus balsamifera L.), and black cottonwood (Populus trichocarpa Torr. & Gray). Hybrids between Sitka spruce (Picea sitchensis (Bong.) Carr.) and white spruce, and between black cottonwood and balsam poplar occur in the southern portion of the range in Alaska. Thinleaf alder (Alnus tenuifolia Nutt.), feltleaf willow (Salix alaxensis (Anderss.) Cov.), Scouler willow (Salix scoulerana Barratt ex Hook.), and Bebb willow (Salix bebbiana Sarg.) are species normally classified as shrubs, but they do attain tree size and are common in the early stages of forest development. Black spruce and tamarack (Larix laricina (Du Roi) K. Koch) are associated on some sites (9, 10).

Natural regeneration has been relied upon to restock burns and harvested areas. Planting has been conducted on a trial basis in interior Alaska, but at present it does not contribute significantly to reforestation.

Good to excellent seed crops occur at 1- to 3-year intervals for the hardwood species (6, 16). Occurrence of white spruce cone and seed crops is more erratic, good to excellent crops can occur at 2-year intervals or they can be separated by 10 to 12 years (14, 18). Cold summer temperatures at the time of seed formation can retard seed maturation and result in seed crops of poor quality. This can occur in years of excellent cone production and thus excellent cone crops do not necessarily mean excellent seed years. Immature seed may have most consequence at higher latitudes above the Arctic Circle and higher elevations (1,950 ft or 595 m) (15).

Wind is the primary seed dispersal agent for these boreal forest species. Maximum dispersal distance is greatest for Populus spp. followed by paper birch and white spruce. Secondary dispersal is accomplished by water, animals, and by gravity or wind movement over snow. This may be important in redistribution of seeds. Populus spp. seeds are dispersed in June and July and must germinate within several weeks to a month or die (6). Birch and white spruce seeds are dispersed in the fall and winter; germination can begin soon after snow melt and be completed by late June if temperature

and moisture are adequate. If conditions are limiting, germination may be delayed until late summer or, in some cases, until the following summer (6, 16, 18).

In harvested or burned forest areas, mineral soil seedbeds appear to provide the best conditions for germination and early establishment. This is particularly true for the small seeds of aspen, balsam poplar, and black cottonwood. White spruce and birch, to a lesser degree, are able to germinate and become established on shallow organic layers and mixed mineral soil-organic matter seedbeds. In undisturbed natural forests, rotted wood provides good conditions for spruce germination and seedling establishment (6, 14).

Scarification also benefits seedling growth and survival. The benefits, however, are not always as clear as they are for germination. Examples of significant variation in response to seedling growth on scarified surfaces have been observed (14). In prescribing scarification, particular attention must be given to extent of scarified areas, depth, soil type, and overall site productivity. These variables can have a differential effect on stocking levels and growth rates of different species.

All of the hardwood species have the capacity to reproduce vigorously by vegetative means. Aspen stand formation depends on the distribution of the root systems of trees present prior to disturbance. These stands tend to have relatively uniform distribution of individual stems (6). Birch reproduces vegetatively by stump sprouting, and the stands formed usually consist of groups of stems arising from stumps of the previous trees. Birch begins to lose its ability to sprout at age 60. Balsam poplar and black cottonwood reproduce vegetatively by stump sprouting, root suckering, or by rooting and growth of broken, buried stem or branch segments (19). White spruce has the capacity to layer. This process appears to be an important way of maintaining stands near treeline but has little importance in recovery from disturbances such as fire or logging.

The hardwoods are early successional species and have the characteristics normally attributed to these species (e.g., rapid juvenile growth, relatively high light requirement, short life span, and eventual replacement by more tolerant, longer lived species). Aspen and birch are the most common upland hardwoods. Birch frequently occupies cooler and moister sites than aspen, although they occur in mixed stands. Balsam poplar and black cottonwood form relatively large stands adjacent to rivers and generally are of minor importance on uplands. These floodplain species tolerate flooding, and their ability to regenerate from buried branch and stem segments makes them well adapted to these sites.

White spruce is more tolerant than the hardwoods and eventually replaces them, frequently at stand ages of 80 to 100 years if the spruce becomes established at the time of stand formation. Replacement by spruce may require a much longer period if invasion occurs gradually due to a lack of adequate seed or seedbed conditions. White spruce tolerates moderate levels of flooding and silt deposition. Trees suppressed for up to 150 years have shown the ability to grow rapidly following release.

Rotation age will vary with species and the desired product. In interior Alaska, 130 years is used by the Alaska Department of Natural Resources in calculating the allowable cut for sawlog production in unmanaged stands of white spruce which have been regenerated naturally (13). Growth and yield data for white spruce suggests that small-to-medium sized sawlogs can be produced in 70 to 90 years on good sites with more intensive management (2). Alaska's Department of Natural Resources has used 70 years for calculating the allowable cut of hardwoods in the Fairbanks District (13).

Mean annual increment of unmanaged white spruce stands on moderate to good sites varies from 30 to 50 cubic feet per acre (2.1 to 3.5 m³/ha). For aspen, mean annual increment may be as high as 80 cubic feet per acre (5.6 m³/ha) on good sites, while birch on good sites is somewhat less productive (48 ft³/acre or 3.4 m³/ha) (2, 3). Mean annual increment of balsam poplar may attain 100 cubic feet per acre (7 m³/ha). Average volumes being harvested on commercial forest land in the Fairbanks area are 15,000 to 19,000 fbm (Scribner Decimal C Log Rule) or 3,000 to 3,800 cubic feet^{1/} per acre (210.0 to 266.0 m³/ha); volumes up to 30,000 board feet (fbm) or 6,000 cubic feet per acre (420 m³/ha) have been measured.

The most serious insect pest is the spruce beetle (Dendroctonus rufipennis (Kirby)). During the past decade, this species has caused significant mortality over an area in excess of 500,000 acres (202340 ha) in the Kenai Peninsula-Cook Inlet area. Other bark beetles are important causes of mortality north of the Alaska Range. A key factor in keeping these insects at acceptable population levels is good sanitation following harvesting (4).

The most noticeable insect pests of hardwoods are defoliators. Epidemics of the large aspen tortrix (Choristoneura conflictana (Walker)), whose host tree is aspen, and the spearmarked black moth (Rheumoptera hastata (Linnaeus)), whose host tree is paper birch, have occurred in the last 15 years in interior Alaska. These epidemics were controlled by natural processes, and little tree mortality was observed (4).

Cone and seed insects significantly damage white spruce seed crops during some years in local areas. Although they may not have a significant impact on natural reproduction, they can greatly reduce the quantity and quality of seed available for collection (4).

The impact of diseases on forest growth and development is poorly known. Various species of heart and root rotting fungi affect white spruce and the hardwoods; these are particularly noticeable in the overmature hardwood stands. Needle (Chrysomyxa ledicola Lagh.) and cone rusts (C. pirolata Wint. ex Rabh.) affect white spruce over large areas with the latter making collection of high-quality seed difficult in some years (4).

^{1/} Cubic foot and metric conversions from measurements expressed in board feet (fbm) may not be accurate.

Large and small mammals can have an impact on selected portions of the tree or, more significantly, on stand composition and early growth. Red squirrels are capable of harvesting the majority of cones produced in moderate to good cone years. During periods of high population density, the snowshoe hare significantly slows stand growth and development by browsing at intensities approaching 100 percent (12).

Fire has played an important role in forest development. Fire intervals are estimated to range from less than 50 to more than 200 years. None of these species is resistant to fire; and in most cases, trees are killed by fires of light to moderate intensity. Pure spruce forests are more flammable than hardwoods because of the greater accumulation of cured fuels, and crown and foliage characteristics. Because of varying species mixtures and site conditions, there are generally significant unburned areas within the perimeter of any burn. Site conditions, species composition, proximity to a seed source, fire intensity, and postfire residual organic layer depths determine the rate of recovery following fire.

Fire has not been used as a management tool in Alaska. It has been used successfully, however, in adjacent western Canada. The main objectives in prescribing fire would be for fuel reduction and site preparation following harvesting.

Forest management and silviculture are in a very early stage of development in these subarctic forests, and little Alaskan experience exists upon which to make recommendations. The trends to date appear to follow those which exist for these species in other parts of their range. That is, even-aged management will predominate. Under natural conditions, however, white spruce may occur in multiple-aged stands and land managers may desire to maintain this condition.

Clearcutting is the only silvicultural practice currently applied. The species managed under this system are able to regenerate in the open conditions created by clearcutting. Both an adequate seed source and a mineral soil seedbed within 300 feet (91 m) of a source of seeds must be present to attain acceptable levels of white spruce stocking. An adequate mineral soil seedbed is not usually created by harvesting and is normally accomplished by scarification. Because the quality of the seedbed in terms of germination and seedling survival deteriorates with time, seedbed preparation should coincide with good to excellent seed crops, where possible.

In aspen and birch stands, clearcutting is generally followed by vigorous vegetative reproduction. Provided pre-harvest stand density is adequate, aspen vegetative reproduction produces high stocking levels within 2 years. Aspen appears to respond most vigorously when the organic mat is disturbed but not completely removed and the root systems remain intact. Vegetative reproduction cannot be relied on, however, for high levels of birch stocking. High levels of birch stocking require attention to seed source proximity and seedbed conditions (6). Mature to overmature balsam

poplar and black cottonwood stands do not always attain high stocking levels as a result of vegetative reproduction (19). Again, some degree of organic matter disturbance appears to improve stocking levels for these species.

The shelterwood system has been applied only on an experimental basis in white spruce. The results in terms of stocking have been good. This system is a viable option to clearcutting as a way of creating even-aged stands and perhaps a superior method where aesthetic considerations are important. Hardwood regeneration has also been abundant under the open stand conditions created in the shelterwood (17).

Group selection appears to be an option for land owners that wish to maintain a multiple-aged forest condition. Abundant white spruce and birch regeneration has been observed in small forest openings no larger than 0.75 acre (0.3 ha) in size created by harvesting and seed bed preparation (15).

All species in this complex tend to have shallow root systems and are vulnerable to logging damage and windthrow. Silvicultural systems should attempt to minimize windthrow and maintain an adequate seed supply during the regeneration period. In addition, these species tend to have relatively thin bark and are susceptible to mechanical damage during harvesting. Limited application of the shelterwood system on upland sites in the Fairbanks area has shown that loss of residual trees can be minimal.

Management of sapling and pole-sized stands has received little attention. White spruce can respond immediately to cultural practices such as thinning and fertilization (7). Thinning is currently being conducted on a limited operational scale in white spruce and birch stands on upland sites in the Tanana Valley.

The combined research and operational experience to date suggests that the major concern in maintaining this complex is achieving adequate stocking of white spruce. Vegetative reproduction will generally maintain some level of stocking of hardwoods; however, unless particular attention is given to proximity of seed source, site, and seedbed conditions, white spruce importance will decline. If the land manager wants to maintain a high level of white spruce stocking and it is not possible to address these factors, artificial regeneration must be used.

The white spruce-hardwood forests of Alaska provide a multitude of products and amenities. Past fires have created a mosaic of forest conditions that provide wildlife habitat, recreational opportunity, and a diversity of commercial and non-commercial forest products. Watershed values and stream habitat are an important resource. Interior watersheds are large with a majority of the area extending beyond the forested zone. Silvicultural activities will probably have little effect on the major river systems, such as the Tanana and Yukon, but might affect tributaries where the majority of fish spawning takes place. Watershed studies are in their infancy in this region.

Properly applied silvicultural practices and fire management can maintain the forest diversity needed to provide the range of products and amenities available in the natural forest. In populated areas, the recommended silvicultural practices offer the best means of maintaining diversity.

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3. Red Alder

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Red alder (Alnus rubra Bong.) is the most widely distributed hardwood type in the coastal Pacific Northwest, occupying more than three million acres (1.2 million ha) of commercial forest land in Oregon and Washington. This type is identical to Society of American Foresters cover type 221 of the same name (4). The type is found from southern California to southeastern Alaska, but stands seldom occur east of the Cascade Range or the Sierra Nevadas. Red alder stands grow on a wide range of soil and site conditions, varying from well-drained gravels and sands to poorly drained clays and organic soils (17). Because red alder can tolerate poorly drained conditions and some flooding in the growing season, it prevails on soils of restricted internal drainage, along streams, and on swampy or marshy areas. The most productive stands are usually found on deep, well-drained loams or sandy loams derived from marine sediments or alluvium; some very good stands also grow on residual or colluvial soils of volcanic origin. Rapidly growing red alder stands occur on hillsides as well as along streams at elevations below 1,500 feet (460 meters) in coastal areas of northern Oregon, Washington, and British Columbia. At mid-elevations in the Cascade Range, stands of commercial dimensions are limited mainly to stream bottom sites.

Climate in the type's range is humid or superhumid, with most precipitation occurring as rain during winter. Summers are cool and dry, sometimes with considerable morning fog. Annual precipitation and temperature extremes are 16 to 220 inches (405 to 5590 mm) and -22° to 115° F (-30.0° to 46.1° C), respectively. Most stands, however, are found where annual precipitation exceeds 40 inches (1015 mm) and winter temperatures are relatively mild.

Red alder occurs in both pure and mixed stands. Common tree associates include Coast Douglas-fir (Pseudotsuga menziesii (Mirb.) Franco var. menziesii), western hemlock (Tsuga heterophylla (Raf.) Sarg.), western redcedar (Thuja plicata Donn ex D. Don), Sitka spruce (Picea sitchensis (Bong.) Carr.), black cottonwood (Populus trichocarpa Torr. & Gray), bigleaf maple (Acer macrophyllum Pursh), and willow (Salix spp.).

Red alder regenerates most commonly by natural seeding. It has also been established by direct seeding and planting in several research and pilot-scale trials (17). Survival of both bare-root and container seedlings has been excellent (3). Red alder will sprout vigorously from the stump when young and has been repeatedly coppiced on short cycles (6). Stumps of pole- and sawlog-size trees may sprout, but sprouts rarely persist.

Individual trees reach sexual maturity at 3 to 4 years, and most dominant trees in a stand will begin to produce seed at 6 to 8 years (11). Red alder is a prolific seeder, with moderate seed crops produced almost annually. Bumper crops occur at 3- to 5-year intervals, and seed crop failure is unusual. Seed dispersal begins soon after ripening in late summer, but most seeds are shed during fall and winter. Dissemination is primarily by wind, and sufficient seed for natural regeneration is usually present throughout the species' range (17).

Germination and early growth is best on moist mineral soil and in full sunlight. The species is a common pioneer on landings, skidtrails, road cuts, and other areas where mineral soil has been freshly exposed. Seeds will also germinate on soil organic horizons and on rock-surfaced logging roads, but the newly developing roots must quickly penetrate a moist, nutritious substrate if the seedlings are to survive. Some early mortality has been observed after girdling by meadow mice or cutting by mountain beaver, but its extent is unknown.

Red alder is moderately intolerant of shade. Seedlings will survive in partial shade for several years, but full sunlight is required for normal development. Compared with most of its associates, red alder is relatively tolerant of flooding and salinity. Windthrow is not common except along exposed cutting boundaries or where root-systems have been undermined by flooding or erosion. Mortality, stem breakage, and other top damage have been observed in natural stands after ice storms and unseasonable frosts (3, 17).

Red alder is the only commercial tree species native to western North America that fixes atmospheric nitrogen symbiotically in its root nodules; both content and availability of nitrogen are increased in soils beneath red alder stands. Accretion rates varying from about 40 to more than 300 pounds of nitrogen per acre (45 to 335 kg/ha) per year have been reported for alder stands of 50 years and less (12, 13). Soil organic matter is higher and bulk density is lower in red alder stands than in conifer stands of comparable history (12). Red alder has therefore been proposed for site improvement purposes, either by itself or in crop rotations and mixtures with other species.

Young stands of red alder may be very dense, having more than 100,000 stems per acre (247100 stems/ha) at 1 and 2 years (2). Self-thinning or suppression-related mortality begins at an early age in such stands, but they remain too dense for optimum growth without management. Spacing control or thinning in previously unmanaged stands is effective in stimulating growth if done before age 15 to 20. Thinning in overly dense,

older stands can salvage mortality but is of questionable value for increasing growth on selected crop trees (10, 15).

Young alder trees grow rapidly. On favorable sites, seedlings grow 3 feet (0.9 m) or more in the first year; they may attain 30 feet (9.1 m) by age 5 and more than 80 feet (24.4 m) by age 30 (16). Good growth rates are maintained from establishment to at least age 25; during this period, growth of red alder surpasses that of any other conifer or hardwood species in the Pacific Northwest, with the exception of black cottonwood on its best sites. Growth thereafter slows, and the decrease begins earlier and is greater on poor than on good sites.

Growth and yield information is available for natural, unmanaged stands of red alder (1, 2, 10, 13, 14, 16). On well-stocked sites of the highest quality, mean annual increment (total stem) may approach 150 cubic feet per acre ($10.5 \text{ m}^3/\text{ha}$) for 20- to 40-year rotations; a comparable value for sites of average quality is 120 cubic feet per acre ($8.4 \text{ m}^3/\text{ha}$).

Projections based on early performance of experimental plantings, results of thinning trials, and gains obtained with spacing control of other species suggest that yields of managed red alder stands will be much higher than natural stands (2). For example, coppice stands can be grown on cutting cycles of 2 or more years, and pulpwood-size (6-inch diameter at breast height (d.b.h.) (15 cm)) trees can be produced in 10 to 15 years on good sites. Sawlog- and veneer log-size trees (12-inch d.b.h. (30 cm)) can probably be grown in 25 to 35 years on such sites. Annual total stem yields are estimated at 170 to 210 cubic feet per acre (11.9 to $14.7 \text{ m}^3/\text{ha}$). Rotations longer than 40 years are not recommended for timber production because of increased disease problems and reduced growth of red alder at older ages (3, 13, 17).

Young, vigorous stands of red alder appear relatively free from serious insect and disease problems, but such pests could become more evident or serious as the species becomes more widely managed (17). Insect damage observed in alder stands include twig girdling by flatheaded borers, defoliation by tent caterpillars and sawflies, and infestation by bark beetles. Red alder is susceptible to several canker-causing fungi and foliage and catkin diseases, but none have significant economic importance. A white heart rot is the major cause of defect in older trees, and many other fungi species have been identified on alder as secondary invaders of dead or dying tissues. Red alder is resistant to laminated root rot (Phellinus weirii (Murr.) Gilb.), and therefore is a suitable, non-susceptible species for growing on sites severely infested with the fungus (5).

Fire rarely damages red alder stands--in fact, the species has been planted as a fire break (17). The low fire hazard is due to scarcity of flammable understory and organic debris in closed alder stands and because natural alder stands commonly occur on wet sites. Fire may be an important site preparation tool in red alder management. Dense understories of shrub species develop in older, unmanaged red alder stands with less than full stocking, particularly on the more productive sites. Such shrub species

may take over the site following harvest and thereby prevent successful regeneration of alder or other commercial tree species, unless special site preparation measures are taken. Tractor scarification is rather expensive and is inappropriate on many red alder sites because of steep terrain or excessive soil moisture. Broadcast burning is usually difficult because of moist conditions, green underbrush, and the nonresinous, light slash of such stands (17). Coupled with preparatory applications of herbicides and/or desiccants, however, broadcast burning can be a suitable method for ameliorating the brush encroachment problem following harvest cuts on such sites (9).

Although natural stands of red alder occupy about 15 percent of commercial forest lands in western Oregon and western Washington, foresters have had little experience in managing the species. Historically, red alder has been regarded primarily as a weed species limiting production of more highly valued conifers. Stumpage values for red alder are very low; available supplies far exceed present demand (7). There is growing interest, however, in regeneration and management of red alder because of its rapid juvenile growth and ability to fix atmospheric nitrogen and improve other chemical and physical properties of soils. Recent expansions in use of the species in solid wood, paper, and other reconstituted fiber products as well as recognition of its potential contributions in multiple-use situations have also aided the developing interest in red alder management. Because of the dearth of operational experience with the species, present management recommendations are based primarily on extrapolation of results from limited research trials as well as management experience with other species having similar biological traits.

Silvical characteristics and regeneration requirements of red alder mandate a silvicultural system adapted to even-aged management, specifically, clearcutting, seedtree, or shelterwood. Of the three, clearcutting provides the greatest flexibility in use of site preparation techniques to control brush and to expose mineral soil. Natural seeding from adjacent uncut stands, direct seeding, and planting of container or bare-root seedlings have all resulted in satisfactory establishment of new alder stands in clearcut areas (3, 17). Stocking in naturally established stands, however, is commonly either clumpy with much unoccupied growing space or extremely dense. Thus, planting may be preferable in situations where red alder is managed primarily for wood production. In most cases, clearcutting is probably the most effective silvicultural system, followed, if necessary, by scarification or some other form of site preparation. Clearcutting is also the appropriate method to use in short-rotation management systems for fiber and energy production (2, 6).

No attempts to reproduce red alder by the seedtree method have been documented. Only in rare cases does seed supply limit natural regeneration of red alder after clearcutting; seedbed condition is more likely to be the limiting factor. Leaving a few seed trees per acre, however, might provide a more uniform distribution of seedlings where cutting units are exceptionally large or where there are few adjacent uncut red alders.

The shelterwood system might also be used to regenerate red alder, but there is little documented information to recommend it. Seed is usually produced every year, and established seedlings grow best in full sunlight. Moreover, juvenile growth rate of red alder is so rapid that, even in areas of high aesthetic value, the overstory would probably have to be removed in less than 2 years; excessive damage to the young reproduction would otherwise be expected.

Because red alder can become established naturally in abundance, precommercial thinning will probably be an essential feature of management programs--especially those that entail natural regeneration. There are several reports of enhanced growth of the species following early spacing control (10, 15); such cutting also provides opportunities to favor stems of superior form. Uniform spacing may also reduce the sweep or lean characteristic of red alder in unmanaged, irregularly spaced stands (2).

Maintenance of the red alder type is no problem; the estimated acreage occupied by red alder in western Oregon and western Washington has more than tripled in the past quarter century. Recent emphasis on conversion of red alder stands to conifers, however, has resulted in an unbalanced distribution of age classes in some areas. Individual alder stands begin to break up by age 60 to 70; intact stands more than 80 years old are rare. Much evidence points to maximum rotation ages of 40 years or less if wood production is the primary objective of management.

Mixed stands of red alder and other species are more common than pure red alder stands in many parts of the species range. These mixtures are both even- and uneven-aged, and may include most of the previously listed associated tree species. There is no specific management experience and little research data for most of these mixtures; the intention of most forest owners and managers is to convert such stands to pure conifers after harvest of the existing stands. There are some exceptions, however, and interest in mixed-species management has increased substantially in the last decade. For example, mixed stands of Douglas-fir and red alder have been established on an experimental basis and such mixtures are now being considered for limited operational use on some nitrogen-deficient soils. Interplanting alder seedlings in a 4-year-old Douglas-fir plantation at a ratio of nearly two alders to one Douglas-fir, increased soil nitrogen and soil organic matter and lowered bulk density (12); it also enhanced growth of Douglas-fir (8). Similar benefits might be obtained with a lower ratio of red alder to Douglas-fir. Mixed red alder-Douglas-fir stands are prescribed on the Siuslaw National Forest for soils that are low in nitrogen but are otherwise productive (site index class II). Current management plans for these sites call for leaving some naturally established red alder when Douglas-fir plantations are precommercially thinned at about age 10 (14). The red alder will be removed in a commercial thinning at about age 40. It is assumed that nitrogen accumulated in the soil during the period of alder's occupancy will enhance Douglas-fir growth in the remaining years of the conifer rotation.

Red alder stands can be established and managed for purposes other than, or in addition to, wood production. Because of the species' tolerance of poor

drainage and flooding, alder is sometimes recommended for management in riparian zones. It can be especially useful in the amelioration of coal mine spoils, landslides, and other eroded or low fertility areas. Although red alder is not a preferred browse species, its presence in pure stands, small clumps or stringers, and mixed stands within extensive conifer forests provides edges and adds structural diversity; it may therefore be used to enhance the forest habitat for many wildlife species. Aesthetically, red alder stands provide variety in a landscape covered mainly by stands of conifers, and its rapid juvenile growth rate permits its use where rapidly established tree cover is desired for protection or enhancement of visual resources.

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Appendix E

DISPOSITION OF PUBLIC ISSUES

The disposition of each major issue is described below, including the role it played in the Regional planning process.

ISSUE 1: POSSIBLE ADVERSE IMPACTS TO FISHERIES FROM TIMBER HARVEST

There is public concern about possible adverse effects to anadromous fisheries from timber harvest operations. Some of these effects could be stream sedimentation, stream temperature changes, and instream debris. Adverse effects can be minimized, however, through the proper design and construction of roads, harvest units, and facilities and through implementation of existing policies and standards and guidelines.

Standards and guidelines in the Regional Guide and those Forest-level policies in the Area Guide for the fish, timber, and soil and water elements provide protection for anadromous fish habitat. Standards and guidelines in the National Forest Management Act and direction in the Alaska Lands Act also provide for habitat protection. After an analysis of the situation, it was concluded that no major changes in Regional-level management direction are necessary.

ISSUE 2: OLD-GROWTH TIMBER AND WILDLIFE HABITAT

The Forest Service recognizes the concern, expressed by the Alaska Department of Fish and Game and by some individuals and organizations, that harvesting old-growth forest may have a serious adverse effect on wildlife species dependent on this habitat type for all or part of their life cycle. This concern has been particularly strong with respect to Sitka black-tailed deer.

The issue centers around a belief that harvest on any old-growth stands will be harmful, and that under present harvest levels and practices, the old-growth timber stands that remain will be inadequate to sustain optimum populations of such species. It is believed also that old-growth stands are nonrenewable in areas where timber harvest has occurred. In the case of Sitka black-tailed deer, the primary concern is retention of critical winter range, which is particularly important during severe winters of deep snow accumulation.

The Forest Service and other land managers have many options in the management of Alaska's forests, such as retaining various proportions of the deer range utilized in severe winters; retaining stands by locality that meet specific community needs; manipulating second-growth stands to stimulate deer browse; lengthening the harvest rotation in some areas and maintaining a 100- to 125-year rotation age in others; and increasing the size of individual timber harvest units in some watersheds to offset

reduced harvest areas in other watersheds in the short run. At issue, then, is where, when, and how much of each option to exercise, what the resulting size and pattern will be, and the long- and short-term effects on wildlife.

Some of the public believes that there is no satisfactory strategy because the timber level set by the Alaska Lands Act is not achievable, considering the amount of land that has been allocated to wilderness. Congress, after carefully considering all available information, determined that 4.5 billion board feet per decade were possible on the land base that they allocated and subsequently made a commitment to fund the investments needed. The supply and demand assessment reporting system established in the act will allow Congress to make whatever correction it feels is necessary.

The relationship between some species of wildlife, such as Sitka black-tailed deer, bald eagles, and bears, and old-growth forest habitat was identified during the development of the Southeast Alaska Area Guide and the Tongass Land Management Plan. The resource management policies contained in the Area Guide are still in effect and provide direction to the Forest level of planning on the Tongass National Forest. These policies give management direction for all wildlife, including those dependent on old-growth forest habitat. The Tongass Land Management Plan allocates 16.9 million acres of National Forest System lands¹ for multiple-resource uses, including wildlife and fish habitat. About 1.6 million acres of commercial forest land, much of which is old-growth habitat, are in a permanent timber production exclusion status, because they are a part of the total 5.6 million acres of wilderness and National Forest National Monuments. The Tongass Land Management Plan also places more than 500,000 acres of commercial forest land in Land Use Designation (LUD) II and further states that no timber harvest will be allowed in LUD II areas, except for timber salvage necessary to prevent significant damage to other resources.

Of the 16.9 million acres on the Tongass National Forest, 5.7 million acres are commercial forest land. Of this, 3.7 million acres are not programmed for timber harvest, since they are included in wilderness, LUD II, unregulated, and technologically marginal stands. Approximately 270,000 acres of commercial forest lands have been reserved for resource protection (for example, critical winter deer range, bald eagle nesting trees, and highly scenic views), so that, in the actual timber sale planning process, specific areas may be identified and retained. Under the Tongass Land Management Plan and the Alaska Lands Act direction, management plans schedule up to 18,000 acres per year for harvest, resulting in approximately 3.1 percent of the commercial forest land being harvested over the 10-year plan period. If this harvest rate were to continue for the rotation period of 100 years, 1.8 million acres would be harvested,

¹Includes additions to the National Forest System as a result of the Alaska Lands Act.

which is 11 percent of the total Tongass National Forest acreage, or 31.6 percent of the total commercial forest land. The Tongass Land Management Plan will be revised after Congress has an opportunity to respond to the reports on the resources of the Forest required by section 706 of the Alaska Lands Act. The habitat needs of the wildlife and fisheries resources will be considered and included in the revision process.

Each timber sale is planned by an interdisciplinary team on a site-specific basis. This team is composed of a number of resource specialists working in coordination with other agency personnel, such as the Alaska Department of Fish and Game. The team's role is to identify alternative timber sale layouts and associated support facilities. The intent is to provide sound resource management. When resource conflicts cannot be avoided, they are reconciled to the extent possible through proper sale layout design and specification of mitigation measures. During timber sale implementation, these specialists are available at the request of the sale administrator to ensure that the plans and the actual sale execution are properly accomplished.

Status of Current Research. Research conducted jointly by the Alaska Department of Fish and Game and the Forest Service on Admiralty and Chichagof Islands describes the relationship of Sitka black-tailed deer to old-growth forest and its dependence on this habitat during the winter. The large crowns and heavy limbs of the trees in the old-growth forest act as snow interceptors during heavy winter snowfalls and prevent accumulations of deep snow cover on the forest floor. The lack of deep snow allows the deer easy access to understory food plants and conserves energy during the critical winter period.

Information from the Queen Charlotte Islands in British Columbia, Canada, and from other islands in Southeast Alaska (Sokolof, Liesnoi, and Level Islands), where maritime climate predominates, suggests that deer survive in habitat that has been extensively clearcut. Periodic severe winters may, however, seriously affect deer even in those situations. A recent report prepared by the British Columbia Ministry of Forests indicates that Sitka black-tailed deer populations on the Queen Charlotte Islands may be increasing, even though clearcutting of old-growth forests has been occurring for decades. Many plants on the island are being severely overbrowsed by a large number of deer. However, it must be noted that Sitka black-tailed deer were introduced to Queen Charlotte Island, where there are no natural predators, hunting pressure is light, and the climate is mild compared to the northern half of the Alaska panhandle.

The Sitka black-tailed deer also was introduced to Kodiak Island in 1934. Kodiak Island has never had any old-growth timber cover comparable to that in Southeast Alaska; however, the present population is reported to be high.

The fact that some small islands that have been heavily clearcut have high deer populations now does not mean that old-growth forest is poor habitat or not required for deer survival during the winter. Level, Sokolof, and similar islands are, as a result of timber harvest, in the early vegetative seral stages, which are productive for deer forage. Deer populations should do well on these islands, considering that the last 5 to 10 years

have had comparatively mild winter snowfall. Following a harsh winter season with deep snow or closure of the conifer canopy that shades out the forage plants, deer populations may decline.

In some areas, predation appears to be a cause in reducing the population of deer in Southeast Alaska. The effects of predation on deer populations in Alaska are not well-documented. However, some obvious variations exist between those ranges where wolves occur and the wolf-free islands northwest of Frederick Sound. Only one study to date has dealt with this topic and was conducted on Coronation Island in Southeast Alaska. In that study, wolves were introduced to the island when deer populations were quite high and together with an overgrazed habitat combined to drastically reduce, if not eliminate, the deer population. Thus, that study showed that wolves can be a key factor in limiting deer numbers on small islands.

Extensive study of predator and prey relationships in old-growth versus second-growth timber stands has not been done. However, initial studies on Vancouver Island suggest that, as stands of old-growth become small and fewer, deer will congregate in these stands during heavy snow years. Predators, such as wolves, can concentrate in these areas and conceivably have a greater than normal effect on the deer population.

In addition to identifying the habitat characteristics that are required for deer and their ability to adapt to environmental changes, a complete analysis of predator and prey relationships (wolves and deer) is needed.

Proposal: Do Not Harvest High-Volume, Old-Growth Stands of Timber. The Alaska Department of Fish and Game has stated that harvesting old-growth forests by clearcutting causes a permanent loss of habitat for some species of wildlife, such as Sitka black-tailed deer, mountain goat, and Vancouver Canada goose. The Department states that under a 100- to 125-year rotation schedule, old-growth forest is an irretrievable resource, and such a schedule will cause a permanent reduction in those species dependent on this habitat. The State Boards of Fisheries and Game, in a joint resolution adopted in December 1980, requested that "timber stands of more than 50,000 board feet per acre not be cut and other volume classes be cut only in proportion to their occurrence."

Meeting this request in combination with supplying 4.5 billion board feet per decade of sawlogs means that more acres of forested lands would be harvested annually. Over an entire rotation, the total road network developed under this proposal will not greatly differ from the network that will be developed under the current management approach. What is different, though, is that a larger proportion of the network is developed now rather than later. Instead of entering an average of 18,000 acres, approximately 22,000 to 27,000 acres would be scheduled for harvest per year. There will be 83 to 166 miles of additional roads per year, at an average annual cost of \$14 million to \$28 million (in 1981 dollars).

The increase in the rate of development of forest roads means relatively more access for hunting and recreation and a greater potential for disturbance to wildlife during the breeding season. Under this proposal, the size of the area for roadless recreation experience is more quickly

reduced, and the effects of timber harvesting activities may be more visible from travel routes.

Proposal: Very Large Clearcuts. It has been suggested also that timber harvesting should be permitted over larger areas (for example, an entire watershed), so that operating in lower volume stands will be more cost effective and so that other complete drainages can be left intact. The size of cutting units is limited by the National Forest Management Act to 100 acres in Alaska, except where larger cutting units will produce a more desirable combination of benefits. (See Maximum Size of Created Openings in Chapter 2.) Such factors as topography, relationship of units to other natural or artificial openings and proximity of units, effects on water quality and quantity, visual absorption capability, and effect on wildlife and fish habitat will be considered when evaluating the appropriate size of a cutting unit.

While economies of scale might be realized with very large clear cuts, the age structure within the watershed would be less diverse. Another consideration in the evaluation of an exception to the 100-acre limit is that when more than 25 to 30 percent of a drainage is cut over, streamflow generally increases. This can cause damage to stream channels, which can result in increased soil erosion and sedimentation, reduced water quality, and damage to fish habitat. Scheduling of timber harvesting in a drainage would have to be spaced over time to avoid this possibility.

Within the policy framework shown in this Guide, the Forest Service in Alaska has the option of designing very large cutting units when an interdisciplinary analysis shows that more desirable effects can be achieved. They will be analyzed on an individual basis.

Governor's Decision Memorandum. The Alaska Department of Fish and Game has recently expanded its concept of areas important to wildlife to include ecosystems. This new approach culminated in a June 10, 1981, decision memorandum that was signed by Governor Jay Hammond of Alaska. The memorandum set a selected course of action to address the wildlife and logging relationships in Southeast Alaska.

Of the various options examined, the Governor stated:

Seek agency cooperation and industry support for preserving adequate stands of high-volume, old-growth timber to provide healthy, viable wildlife and fish populations to meet recreational and subsistence use requirements in areas selected for cutting, and work with the public, with industry, and with Forest Managers to maintain the natural diversity of plant and animal communities throughout the forest as much as possible. . . .

The Forest Service recognizes the importance of the high-value wildlife and fish areas and will work closely with the appropriate agencies of the State to address mutual concerns in habitat and timber management. (See Appendix J of the Regional Guide for the complete text of the Governor's decision memorandum.)

Current Programs to Resolve the Issue. The Forest Service has taken the following steps to better define the deer/habitat relationships in Southeast Alaska and to provide perspective to the problem.

1. It has joined in a technical task force with the State Department of Natural Resources, the State Department of Fish and Game, SEALASKA Corporation, the Wildlife Society, and the Society of American Foresters to develop recommendations for various State, Federal, and Native corporation resource managers for managing the wildlife and timber resources in forested areas in Coastal Alaska.
2. It continues to work with the Alaska Department of Fish and Game to identify areas of agreement, to resolve areas of disagreement, and to maintain a high level of professional interaction at all times.
3. It continues in the development and refinement of a Wildlife Habitat Relationships Program for use as an evaluation and consequence analysis tool by resource managers.
4. It has initiated an aggressive program to identify opportunities to improve wildlife habitat through management of second-growth stands. The Forest Service believes that the synergistic second-growth timber/wildlife program initiated in fiscal year 1982 will enable the Region to harmoniously accomplish the second-growth timber and wildlife management objectives. By fiscal year 1984, the Region will have completed 4 to 6 second-growth test treatment projects, which were designed to demonstrate the effectiveness of a variety of silvicultural prescriptions to accomplish second-growth timber and wildlife management objectives.
5. It continues administrative studies and cooperative research with universities, the National Marine Fisheries Service, the Fish and Wildlife Service, and the Alaska Department of Fish and Game to increase knowledge of critical factors affecting the well-being of wildlife and fisheries and their relationship to timber management activities. The Southeast Alaska Timber/Wildlife/Fisheries Modeling effort will continue to be used as a forum for information exchange, identification of inventory and research needs, and evaluation of resource interactions in management applications.
6. In cooperation with the Alaska Department of Fish and Game, the Forest Service is identifying key wildlife habitats on the Tongass National Forest that require priority when selecting retention areas on planned timber sales.
7. It continues the implementation of wildlife habitat management policies established in the Southeast Alaska Area Guide (according to direction given in the Regional Guide).

By fiscal year 1984, the Forest Service, in cooperation with the Pacific Northwest Forest and Range Experiment Station and the State of Alaska Department of Fish and Game, will have:

1. Developed and begun field-tests on a simulation model to define deer habitat needs to support the desired number of deer to meet public demand
2. Developed and begun field tests of a timber/wildlife/fisheries trade-off model
3. Increased forest research programs to focus on wildlife/forest habitat relationships
4. Developed a standardized monitoring system to evaluate and compare the effectiveness of the silvicultural prescriptions in meeting both timber and wildlife habitat objectives
5. Established control sites and implemented a habitat monitoring program
6. Started preproject planning for additional projects during the next 5 years
7. Developed a coordinated program with research to identify their role in the second-growth program
8. Initiated planning for large-scale, second-growth treatments, using Knutson-Vandenburg appropriated funds

The Forest Service believes the above steps will contribute to the resolution of the old-growth/wildlife issue.

ISSUE 3: DESIGNATION AND MANAGEMENT OF WILDERNESS

There is public concern about the amount of wilderness to be designated in Alaska and how wilderness areas should be managed.

The Alaska Lands Act established National Forest wilderness in the Tongass National Forest. The impact of wilderness designations on the timber, fishing, and tourism industry in Southeast Alaska is to be included in the status reports submitted to Congress, as required by section 706(b) of the act.

Management policies in the Regional Guide reflect the Forest Service policy changes necessary to comply with the Alaska Lands Act and the Wilderness Act of 1964. Wilderness studies are being conducted on approximately 5.3 million acres of the Chugach National Forest, and further management guidelines will be prepared as part of the Forest land management planning process.

ISSUE 4: TIMBER PRODUCTION

The broad issue of timber supply centers on three interrelated public concerns. These include the relationship between newly acquired State and Native lands and the National Forest System lands in meeting timber demands; implementing the principle of nondeclining even-flow timber yield versus departure from that principle; and log exports versus local processing (involves local employment).

Departure from nondeclining even-flow will be considered at the Forest planning level. The concern with local processing is also considered beyond the scope of this Guide, as existing regulation and historical policy have restricted large-scale log export of most species from the National Forests in Alaska.

In Southeast Alaska, the timber industry is concerned about the supply of wood. Others question the validity of planning assumptions used in the analysis for the Tongass Land Management Plan. The public wants more information. Specifically, it wants the Forest Service to demonstrate exactly how the timber target will be accomplished--that is, where, when, and how much. Those who want a lower timber target ask either for assurance that the quality and quantity of other resources will be protected or for a more conservative timber target. Those who favor a higher timber target believe that future analysis will show that more timber can be supplied.

Congress struck a balance between wilderness and jobs when it passed the Alaska Lands Act. Congress reasoned that the many resources on the Tongass could be protected and, at the same time, the timber supply could be sustained. In the process, they considered economic and budgetary needs and provided special funding provisions to finance the necessary activities to maintain the mandated timber supply.

Section 705(a) of the Alaska Lands Act establishes a timber supply from the Tongass at 4.5 billion board feet measure per decade. This is consistent with the 450 million board measure annual allowable sale quantity determined in the Tongass Land Management Plan. The 450 million board measure level represents sawlog volume. Volume from utility logs was not included in this calculation because of the difficulty in planning for the utilization of unmerchantable material. Wide variability in use is expected because of differences in individual timber stands and changes in market conditions. The need for additional investments for forest access, intensive forest practices, and advanced harvest technology was recognized by Congress. These investments are needed to manage a substantially larger share of the economic and technologically marginal forest lands component than in the past. Planned investment levels are shown in the Tongass Land Management Plan, as well as the Timber Supply and Demand Reports for 1981 and 1982. These investments are further validated under section 705 of the Alaska Lands Act, which makes available \$40 million annually or whatever amount is deemed necessary to maintain a timber supply from the Tongass National Forest at 4.5 billion board feet measure per decade.

Chapter 3 of the Guide displays the Tongass sawlog target as tentatively programmed over the plan period. To monitor unexpected changes related to the Alaska Lands Act mandate, Congress also provided for a reporting system to describe and forecast the changes in timber demand and supply on the Forest. These reports will require the Forest Service to periodically reexamine many of the planning assumptions made in the Tongass Land Management Plan. (See Appendix D of the Guide for a discussion of the Alaska Lands Act sections 705 and 706 reports.)

The first two reports to Congress required by section 705(a) of the Alaska Lands Act have been completed. Succeeding reports will continue to monitor and evaluate the timber supply and demand situation. The Tongass Land Management Plan will be updated to meet requirements of NFMA regulations after Congress has had the opportunity to respond to the report on the status of the Tongass required by section 706(b) of the Alaska Lands Act.

Updates to the Tongass Land Management Plan will incorporate direction from Congress and the most recent analysis from the reports into its analysis of the management situation. (See Chapter 3 of the Guide, Forest Planning Direction, for Regional policies on the Tongass Land Management Plan implementation and update.)

ISSUE 5: CONCERN ABOUT ECONOMIC DEVELOPMENT AND SOCIAL STABILITY

Public concern was expressed about the support Forest Service programs provide to local employment and social stability. There was concern for the balance of local needs against national and Regional demands for commodity and amenity-related programs.

Area Guide policies as revised in the Regional Guide address this concern. The Alaska Lands Act also provides direction.

ISSUE 6: DEVELOPMENT OF ENERGY AND MINERAL RESOURCES

There is public concern about the need for development of energy and mineral resources in Alaska; the potential adverse environmental effects of mineral development; and the opportunities and problems that mineral development would present to local communities.

Regional policies from the Southeast Alaska Area Guide provide for mineral exploration and development with environmental safeguards and substantial public involvement in the environmental assessment process. The Alaska Lands Act mandated mineral exploration and development.

The public scoping process showed that congressional withdrawals under the Federal Land Policy and Management Act were also a concern under the energy and minerals issue. The Alaska Lands Act addressed this issue by designating wilderness. Analysis led to the conclusion that, with the withdrawal question resolved, existing policy was sufficient to address this issue at the Regional level.

ISSUE 7: CHANGES IN RECREATION OPPORTUNITIES AND VISUAL RESOURCES

There is public concern about changing recreational opportunities and visual resources in areas primarily outside of wilderness. (See Chapter 2 of the Guide, Summary of the Analysis of the Management Situation.)

Alternative standards and guidelines developed for the eight policy topics in the EIS were evaluated for their ability to alleviate effects of development on recreational opportunities and visual resources. (See Chapter 4.) Forest Plans and project plans will provide detailed direction for implementation of the policies in the Regional Guide.

ISSUE 8: TRANSPORTATION CONNECTIONS BETWEEN COMMUNITIES AND MANAGEMENT OF POTENTIAL TRANSPORTATION CORRIDORS

Two issues of transportation seem to be very active in people's minds: transportation connections between communities, and the land management policies of National Forest System lands along potential transportation corridors. Related to these issues is the increasing concern of the public over the size, location, and environmental and social effects of the infrastructure needed to support mineral and energy development. This concern will be addressed in the Forest and project planning process.

The Forest Service, in the course of developing a transportation system to support land management plans, has the ability to help facilitate community connections in many situations, particularly between the smaller communities of Southeast Alaska. The State of Alaska and communities involved have a strong interest in these connections, especially from a community development and road operation and maintenance point of view. Connections between existing or emerging communities are not made by the Forest Service without participation and collaboration of State and local governments, communities, and affected individuals.

Transportation corridors usually involve construction of roads and utility lines along major rivers or the inland waters. Those corridors with high fisheries, wildlife, estuarine, and other values pose conflicts with the construction and usage of major transportation systems. Alternative standards and guidelines were proposed to address this issue and are analyzed in the EIS. The State has identified several natural transportation corridors in Southeast Alaska.

ISSUE 9: MANAGEMENT CONCERN: UPDATE OF THE SOUTHEAST ALASKA AREA GUIDE

The Southeast Alaska Area Guide, which has served to guide Forest Service activities since 1977, needs revision to reflect new legislation, to permit more uniform application on the ground, and to respond to public issues.

Public comments during public participation activities for the Regional Guide identified implementation and monitoring as an issue. The concern also surfaced in contacts made with other Federal agencies, State agencies,

and Native corporations. In essence, reviewers said that the Forest Service develops good plans and policies, but these appear to get lost in the implementation process.

The Forest Service and the public are strongly supportive of the Area Guide as a policy document and of the process used to develop it. The majority of public respondents to the Draft Regional Guide commented that the total Area Guide should be Regional policy. Many respondents thought that the phrase "referred to Forest planning" when associated with a particular policy meant that the policy was to be eliminated. This is not the case. In essence, all Area Guide policies have been retained. The Regional Guide makes clear which level of the Forest Service organization is responsible for maintaining each policy. Area Guide policies that are broad in scope have been adopted as Regional standards and guidelines. Other Area Guide policies have been retained as standards and guidelines for the Tongass and Chugach National Forests. Only those policies that are clearly out of date, such as those guiding the development of the Tongass Land Management Plan from 1977 through 1979, have been eliminated. (Initiation of amendments or revisions to Forest-level standards and guidelines may be made through the Forest planning process.)

Some policies have been modified. The first reason for modification is legislation that directs the Forest Service to do something specific. Other modifications occurred after evaluation of alternatives to the eight standards and guidelines discussed in the EIS. The final cause for modification is to make the policy easier to implement. In response to public comments and a concern for maintaining the specificity of the Area Guide, each policy modification proposed in the Draft Regional Guide has been reexamined. When appropriate, the original language of Area Guide policies has been retained. Appendix B explains the disposition of each Area Guide policy. Appendix C contains letters that are representative of all public comments.

Appendix F

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